Alberta
Energy
Regulator
15
/16
annual report

our mandate

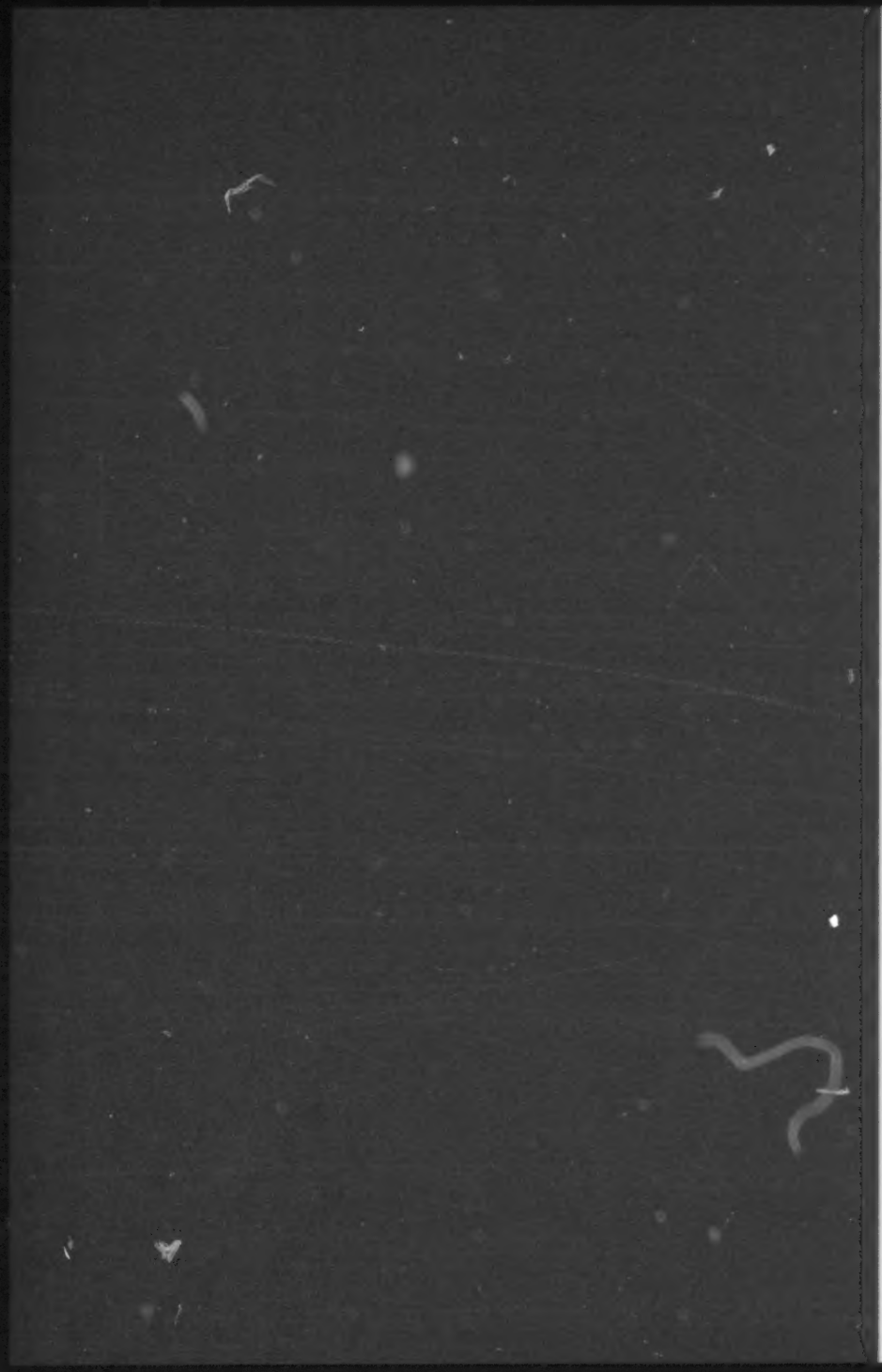
The Alberta Energy Regulator ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

our mission

To regulate Alberta's energy resources by protecting what matters most to Albertans—public safety, the environment, and economic value.

our vision

The Alberta Energy Regulator is recognized for regulatory excellence, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.



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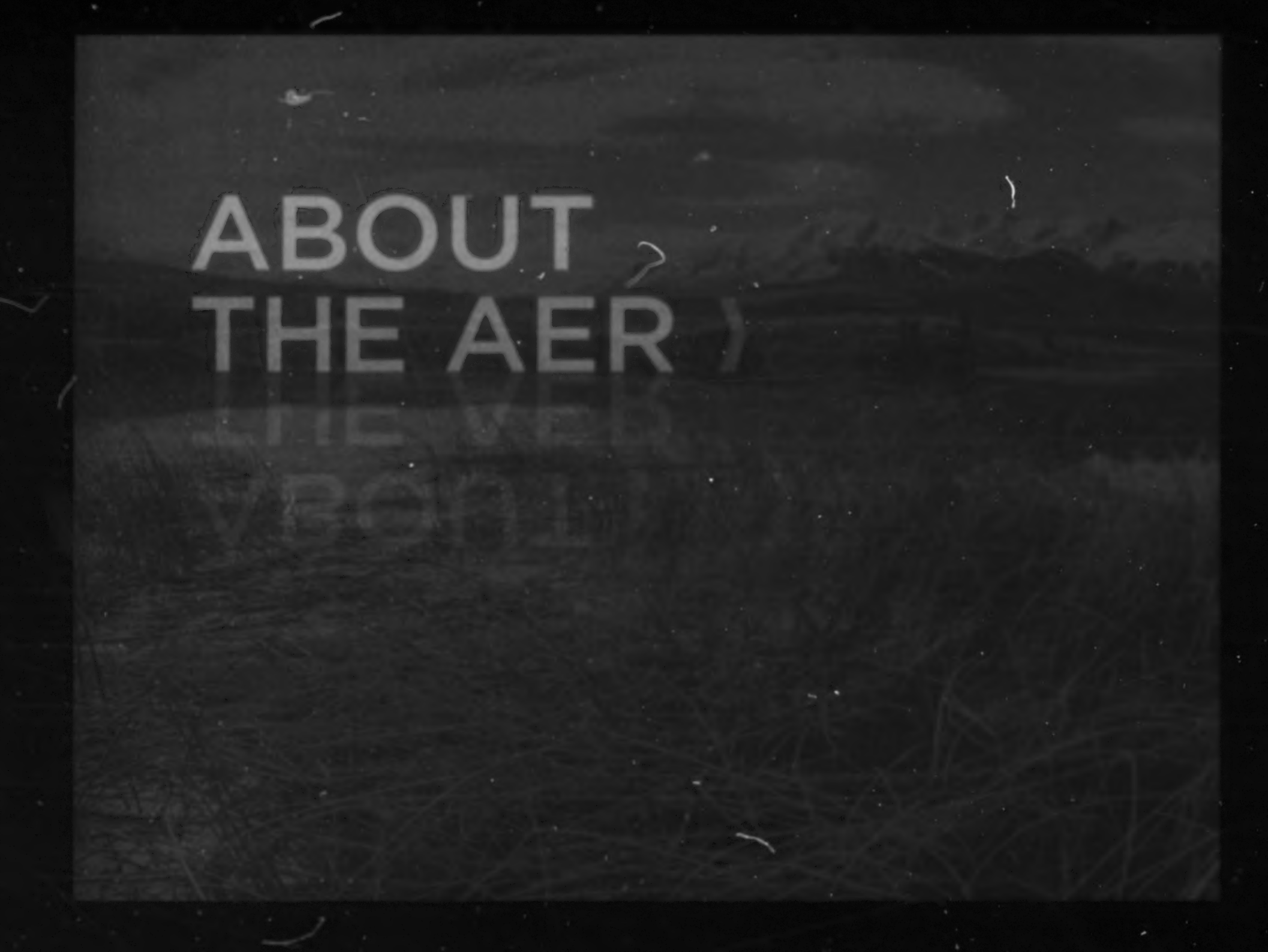

ABOUT
THE AER

THE ALBERTA ENERGY REGULATOR (AER) IS THE SINGLE PROVINCIAL REGULATOR FOR OIL, NATURAL GAS, OIL SANDS, AND COAL DEVELOPMENT IN ALBERTA. THE AER ENSURES THE SAFE, EFFICIENT, ORDERLY, AND ENVIRONMENTALLY RESPONSIBLE DEVELOPMENT OF ENERGY RESOURCES. THIS INCLUDES ALLOCATING AND CONSERVING WATER, MANAGING PUBLIC LANDS, AND PROTECTING THE ENVIRONMENT WHILE SECURING ECONOMIC BENEFITS FOR ALL ALBERTANS.

1200
13
797
30 000
1431 000
1174 000
21 000
50
9
5
4
7

The Government of Alberta gives the AER authority to ensure that companies develop the province's natural energy resources in a safe and environmentally responsible fashion, and without waste.

- We review applications and make decisions on proposed energy developments (over 47 000 applications processed in fiscal 2015/16).
- We oversee all aspects of energy resource activities in accordance with government policies.
- We regularly inspect energy activities to ensure that all applicable requirements are met.
- We penalize companies that fail to comply with AER requirements.
- We hold hearings on proposed energy development cases.

To make it happen, the AER employs some 500 inspectors, technical staff, scientists, investigators, stakeholder engagement specialists, hearings, engineers, regulatory experts, and other employees in 15 locations around Alberta.

The AER also offers two unique grid technologies: the Core Research Centre (CRC) and the Alberta Geological Survey (AGS).

The CRC collects, preserves, and displays core samples (13 million boxes worth of these cylindrical rock samples), with savings (35 million vials of them), providing educational access from over 400 wells, companies can move to research what's below the ground and plan how to develop oil and gas.

The AGS offers a scientific view into the world beneath Alberta. AGS geoscientists provide many services, including determining the effects of oil and gas development on seismic events, mapping the Cretaceous Pakowki aquifer in the Milk River area, and mapping Alberta's valuable groundwater resources.

ALBERTA'S SINGLE ENERGY REGULATOR

The Government of Alberta created the AER in 2013 when it amalgamated the Alberta Energy Regulator with the tool-kit regulatory functions related to energy development that were previously held by Alberta Environment and Sustainable Resource Development (now Alberta Environment and Parks) and updating them with the regulatory functions of the Energy Resources Conservation Board.

The AER's role is to develop and enforce rules and regulations around energy development, taking direction from government policy.

The AER is a key partner in the government's [illegible] approach to managing Alberta's environment and natural resources. Other partners are the government departments of Indigenous Relations, Energy, Agriculture and Forestry and Environment and Parks.

WHAT WE DON'T REGULATE

The AER's authority is limited to activities that relate to oil sands, natural gas, and coal development. We have no authority over any of the following:

- any aspect of electricity generation or distribution, including renewable energies, gas utility pipelines, and the price of natural gas (these are regulated by the Alberta Utilities Commission);
- gasoline or other refined petroleum products; or
- oil and gas pipelines that cross provincial or international borders (these are regulated by the National Energy Board).

MESSAGES

MESSAGE from the chair

Weighed down by low oil and gas prices, there is no denying that the past year has been among the more challenging ones Alberta has endured in a long time. When we launched the AER in 2013, we had no way of knowing that the province would undergo such a significant downturn within a couple of years.

The AER's CEO and executive leadership team, hearing commissioners, and especially our employees, are to be commended for their work over the last year. Thanks to them, the AER has celebrated many successes (discussed in more detail throughout the report), including

- our work to define and craft a made-in-Alberta model of regulatory excellence;
- moving towards a risk-based approach to energy regulation;
- launching programs that further protect our environment and ensure Albertans can trust their regulator; and
- introducing regulatory process efficiencies, significantly reducing the administrative costs to industry while maintaining high expectations for safety and environmental performance.

In these uncertain times, Albertans can be assured that AER inspectors continue to visit facilities around the province and are diligent in ensuring that operations are safe for both the nearby land owners and communities and surrounding land, water, and air. We continue to receive applications and authorize projects; our stakeholders remain a priority, and we strive to ensure all sides of the discussion are heard, respected, and responded to.

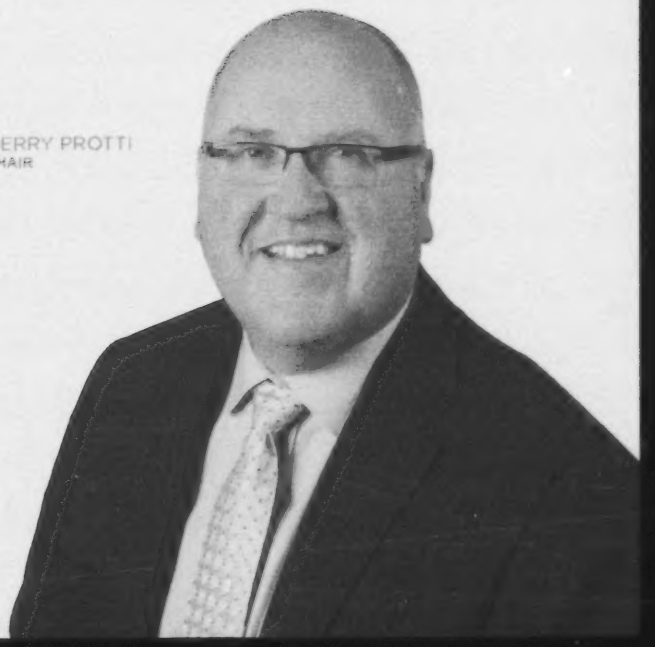
The AER's staff have continued to demonstrate passion for their work, and the CEO and the rest of the executive leadership team have done a remarkable job of leading the regulator through challenging times. The board recognizes and thanks the AER's management and staff for this diligence.

This work has included supporting our new government partners through their transition and moving towards a regulatory approach that considers the risk an activity poses to public safety and the environment. It is clear that the old way of providing a one-size-fits-all approach to regulation will no longer suffice. In our line of work, generic regulation sometimes lacks precision and focus, and the only way to prevent this is to tailor our regulatory tools to fit the activity and particularly its associated risk.

Last year the board bid farewell to two directors whose terms expired—Fred Estlin and Cam Bailey—who played critical roles in the establishment of strong governance practices and oversight of the AER. The board thanks them for their contribution and wishes them well in their future endeavours. The board's activities can be found on page 60.

As the board looks ahead to what's in store for the AER, there are a few things that we can count on: continued excellence from a dedicated group of staff experts who demonstrate their care for Alberta, strong relationships with our government partners that ensure regulations and rules are the most effective they can be, and an agile organization that will evolve with technology to protect what matters to Albertans.

GERRY PROTTI
CHAIR



MESSAGE from the president and ceo

Alberta is living through some rocky times as we grapple with the effects of a collapse in oil and gas prices not seen for years. Like others, the AER's economists forecast a slow recovery beyond 2016, which is little comfort, but that's where we stand.

JIM ELLIS
PRESIDENT AND CEO

Regardless of this economic environment, the AER continues to regulate one of the largest and most diverse energy sectors on the planet. While we must understand the realities of our current economy, protecting the environment and the public remain our top priorities. That's why over the last two years we've worked to make our regulatory system more efficient without compromising safety or the environment. These efforts have yielded hundreds of millions of dollars in savings to industry. This work is outlined on page 30.

We've also delivered on commitments to strengthen public safety and environmental protection. For example, we completed our program to inspect all dams related to the development of oil sands, oil and gas, and coal; we also introduced the *Integrated Compliance Assurance Framework*, which outlines how we ensure companies are following our rules.

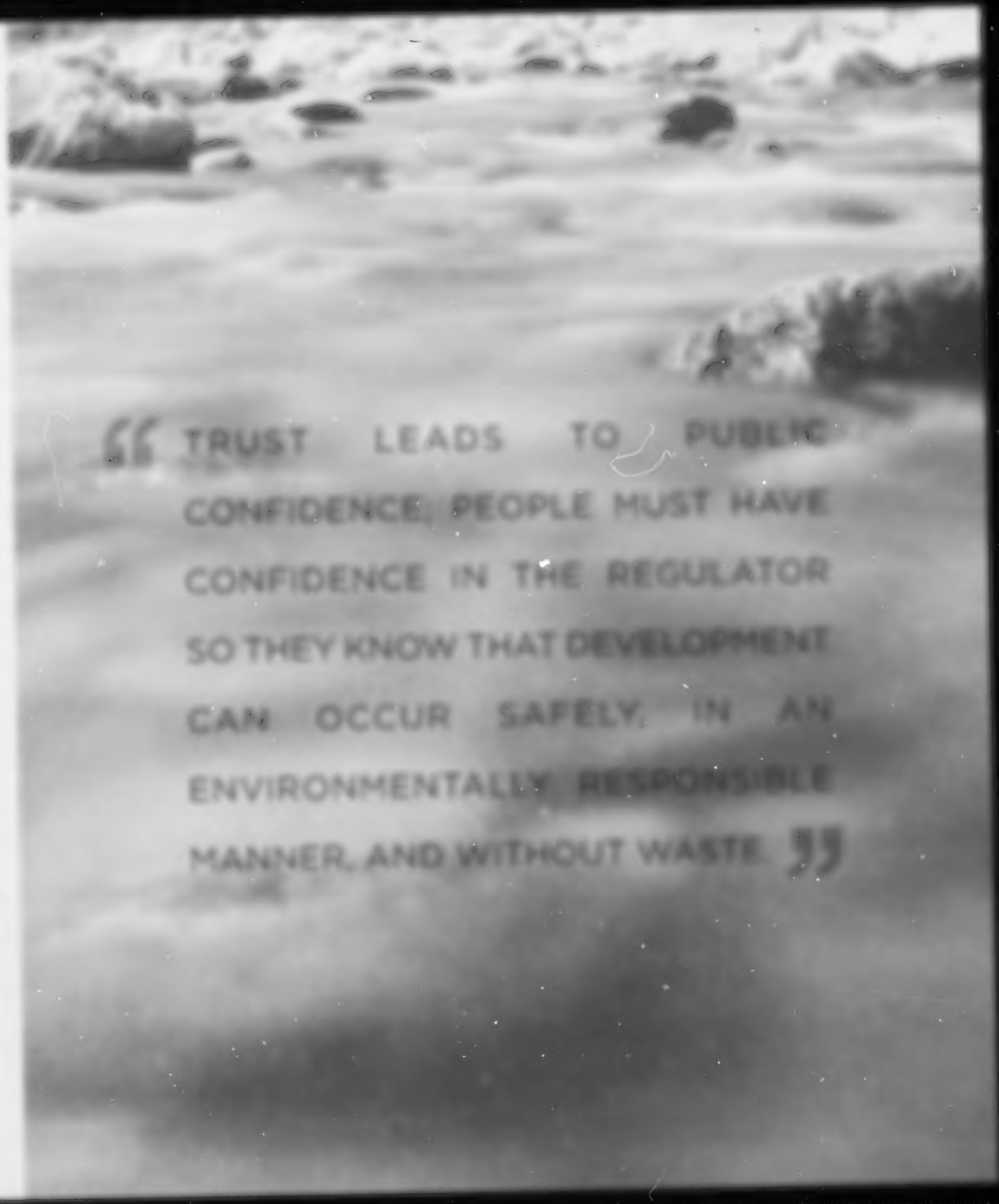
As we've delivered on these and many other initiatives, we've been ever mindful of securing Albertan's trust. Trust is earned; it takes time to achieve and can evaporate very quickly if we're not careful. What's more, trust leads to public confidence; people must have confidence in the regulator so they know that development can occur safely, in an environmentally responsible manner, and without waste.

Other players share responsibility for gaining and holding Albertan's trust and confidence. Government must develop sound public policy that addresses the issues of responsible development, and industry must understand and follow the rules—and exceed them where possible.

Our public stakeholders and Albertans in general represent the final player, as their expectations ultimately holds us accountable. The expectations of public involvement in resource development decisions have never been greater. In fact, this is evident the world over. People everywhere want to know what's happening and how it affects them, their communities, and the environment.

We continue to involve our stakeholders in a number of issues. A good example is how we've worked directly with numerous stakeholder groups to co-create regulatory requirements to manage fluid tailings in the oil sands.

The AER is working to design a new regulatory approach that considers how multiple development activities could affect a specific area and the cumulative effects of those activities over time. This area-based regulation will take into account all impacts the development has on the local community.


“TRUST LEADS TO PUBLIC CONFIDENCE. PEOPLE MUST HAVE CONFIDENCE IN THE REGULATOR SO THEY KNOW THAT DEVELOPMENT CAN OCCUR SAFELY, IN AN ENVIRONMENTALLY RESPONSIBLE MANNER, AND WITHOUT WASTE ”

MESSAGE: an employee's perspective

To describe an excellent regulator we need to be much more than a set of systems and processes to assess. In the wake of ongoing levels of change, uncertainty, the most driven by differences, understanding their needs, and global risk, approach accordingly. That's great leadership.

As a mediator and engagement specialist, with the ADR Institute of Australia, I am constantly reminded that conflict is a natural, necessary part of life. We have been with many community, property, workplace, and relationship issues. At the crux of many of these conflicts is uncertainty, a very frustrating, especially as it seems always an urgent to learn about people, risk making, knowing what steps to communicate effectively.

Enter – the journal working for the regulator to public need, how we were called the Mediating Group, and Dispute Wizard. Here were challenges and this time related to different ideas and approaches to resolving disputes. Private work at work and issues such as work was developed and we encourage having and we were seeking a better way to resolve many, the public interest, settlements, enforcements, or matters may when conflict is how disputes developed. The result was ADRC, or what simply, mediation.

Through ADRC we do it – we are very effective partner in many, their work started there, and from work, we have, and always has at their core of conflict at most to be all cases, to give peaceful result. And it's characteristic of many that the ADRC of us has now their pleasure, talent. We have also and we be ADRC are fitting of engagement and ADRC. Despite it – I plan to work, and we encourage mediation. As a leadership/service, industry, government, management and communities, accountability, or we want ADRC, simply work, to a place to helping, that matters, and understanding, not to collaboration, and we see it as a new tendency to.

And I would not be to understand without the guidance and technical assistance from my colleagues, among them to the to not mention other side of the and group. They, like the other directors of the group to work we provide and that work to develop and, and may, assist us in meeting the ADRC the by new corporate regulation to use to.

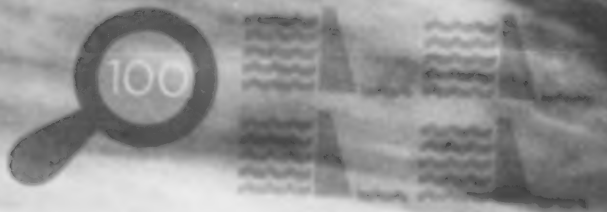
Personally and professionally – that many part of ADRC and I've undertaken many processes very frustrating – and as someone in a couple, and sometimes we can, relate to the benefits to our case stated as many disputes, work, work and strategy – my safety and well-being of family and the communities.

HIGHLIGHTS 2015/16

82%

New public confidence levels in the AER increase from 77 to 82 per cent

Introduced the *Integrated Compliance Assurance Framework*, which outlines how we ensure companies are following our rules



Inspected 100 energy-related dams as part of the AER's dam safety inspection program

35 | 16

Hosted 35 delegations from 16 different countries, including one from Mexico led by that country's energy minister

Welcomed feedback from 1500+ people on the AER's proposed model to achieve regulatory excellence

$200 MILLION

Generated $200 million in annual savings to industry as a result of changes made to *Directive 017*

Launched *Conversations That Matter*, an animated video series that explains complex energy-related topics in a unique way—viewed almost 60 000 times

PROTECTING
WHAT MATTERS

a protective, effective, efficient, and credible regulator

The AER oversees all oil and gas, oil sands, and coal development throughout the entire life cycle—from initial exploration, to operation, right through to closure, including reclamation and remediation.

With this comes tremendous responsibility; the Government of Alberta entrusts the AER with making sure that energy development occurs in a way that ensures the public is safe, the environment is protected, and Albertans receive the greatest value from our resources. This is why we've organized our strategic plan around four priorities: being protective, effective, efficient, and credible.

The AER's core business is to develop regulatory requirements around energy development—taking direction from government policy—and enforce these requirements. This is how we protect what matters to Albertans—our air, land, water, and biodiversity.

Over the last year, we've worked with our stakeholders to develop strong requirements to better manage fluid tailings associated with oil sands mining operations. We also inspected almost 100 dams within our jurisdiction (see page 23), and carried out thousands of inspections of energy facilities of all types and sizes—from single sour gas facilities to massive oil sands operations.

The AER makes sure our requirements effectively address aging oil and gas infrastructure; in 2015 we continued to ensure that industry is bringing thousands of inactive wells into compliance with our regulations. We also recognize the importance of moving towards an effective regulatory framework that considers applications not on a well-by-well basis, but on larger-scale projects.

We understand that the regulatory burden we impose on energy companies affects their ability to develop Alberta's resources in a timely and efficient manner; this can impact our economy in terms of royalty payments, taxes, and jobs. Therefore, we continue to examine the efficiency of our requirements, eliminating ones that are outdated, redundant, or fail to adapt to current technological trends.

Finally, we work to be a credible regulator by continuously meeting with and seeking feedback from Albertans, indigenous peoples, and our stakeholders, and communicating with them in ways that are accessible and easy to understand.

Through all of our efforts, the AER is confident we are building an organization that will continue to be protective, effective, efficient, and credible.

Over the last year we

- **inspected almost 100 dams,**
- **carried out thousands of inspections of energy facilities of all types,**
- **continued to ensure that industry is bringing thousands of inactive wells into compliance, and**
- **continuously met with and sought feedback from Albertans, indigenous peoples, and our stakeholders.**

taking action in Peace River

The phone rings in the AER's Slave Lake Field Centre. The caller, a complainant of a strong odour in the Peace River area and believes it's from a nearby rail yard gas site.

To investigate the cause of the odour, an AER inspector first checks local air monitoring stations to narrow down where the odour may be coming from, based on current conditions and wind directions. From the inspector complex's industry assessment in the area and, soon, from on-check their facilities and report back to the AER on findings.

In this case, the source of the odour turns out to be a leaking valve which, when discovered, is repaired immediately by the operator. The inspector then calls the complainant resident back to report what happened. To ensure the operator fixed the problem correctly, the AER also follows up with an unannounced inspection of the site.

Responding the source of odours can be a challenge, and this is an example of the standard AER process for responding to odour complaints. In response to local residents' concerns, beginning in 2018, the AER will be placing a field inspector in Peace River to enhance the investigative process and ensure a timely response to odour concerns in the area.

Christine Amantea, manager of Environment and Surveillance at the Slave Lake Field Centre, encourages people to call the AER when they smell an odour. "We rely on residents in the area to inform us if something is wrong," she says. "This is an additional tool that our inspectors and to discover and resolve any odour issues, supplementing the strategic and focused surveillance program that we have developed for the Peace River area."

Over the past two years, the AER has made many changes to regulations and stakeholder engagement in the Peace River area to address residents' concerns about the odours. These changes were based on recommendations made following a three week proceeding in early 2018 where stakeholders provided their views to an independent panel of hearing commissioners.

44%

building bridges with Alzheimer's through ADR

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80-95%

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The following principles apply to all mediation conducted by AER staff mediators and hearing commissioners:

- AER is confidential and without prejudice
- Responsibility for resolution rests primarily with the parties
- Parties are fully informed of the AER process and their options
- Mediators are impartial
- The procedures are fair to all parties

AER specialists are found in AER locations across Alberta and in the Hearing Commissioners' office. They are trained in conflict management, many hold professional designations in mediation, and all adhere to a strict code of ethics.

Collectively, the AER team has more than a century of experience in dispute resolution and is highly specialized. Over the past 10 years, they have maintained a resolution rate of 90–95 per cent, travelling all over Alberta to resolve disputes in homes, community halls, even restaurants—anywhere the crucial conversations need to take place.

AER ey hearing commissioner is no files referred to the chief hearing commissioner for a hearing. This process provides the option for agreements reached at AER to form part of the regulatory decision. Hearing commissioners may also conduct evaluative mediation or binding decision making. Parties can use the process to agree on matters for a hearing, such as procedural matters, statements of fact, and expert witnesses. Parties who have their dispute is declined for a hearing have the opportunity to request AER ey hearing commissioner.

Continuous improvement is also an important part of the AER program, as we look at new ways to strengthen bonds between our stakeholders, including Indigenous communities.

"Our team is currently working on best practices when working with Indigenous peoples," confirmed Rose. "This includes a variety of ADR models such as transformative and narrative mediation and Indigenous processes for conflict resolution like sharing circles."

With a focus on the future, innovative ways to resolve disputes, and important discussions still to be had, AER will always be a cornerstone of our business.

focus on area-based regulation

What if decisions on oil and gas development addressed the individual needs and concerns of an area? What if residents in communities collaborated to find solutions to issues?

This is the direction the AER is going over the next few years. It's a new vision for the future that considers the needs of each individual community. "As the regulator, we haven't always done a great job of acknowledging the individual needs of an area or a community beyond those directly affected by an individual activity," says Scott Millar, director for the AER's area-based regulation project.

It's a direction the regulator needs to go, he adds. The way energy resources are developed has changed significantly in the past 20 years. It's no longer the drilling of scattered vertical wells. Development occurs now on a larger scale, in a project style with larger impacts like multiple wells and infrastructure—like roads, batteries, and pipelines—instead of single wells.

The AER needs to look more closely at how multiple development activities could affect a specific area and at the cumulative effects of those activities over time.

Fortunately, the AER has already done some of the groundwork in shifting how we regulate. In 2014, we launched our play-based regulation project in the Fox Creek area of Alberta.

That project looked at how resources would be developed and how that development impacted the land and the community. For example, when a company applies to drill a well, applications for many other activities, such as building an access road, connecting to a water supply, and building a pipeline, may follow. All of these activities have an impact, and under the play-based regulation pilot, the applications to conduct all of those activities came in as one, so the AER could have a better sense of the big picture.

While this pilot included discussions with interested stakeholders, it focused on generating awareness of the project as a whole. And while stakeholders found the complete project picture helpful, they told the AER that engagement could still be improved.

"We know that residents, indigenous peoples, industry, and other stakeholders have unique concerns, specific to their area," says Millar. "Through area-based regulation, we'll be working with those who

"WE WILL BE ASKING STAKEHOLDERS FOR THEIR HELP TO COME UP WITH SOLUTIONS. IT WILL BE A MUCH MORE COLLABORATIVE PROCESS FOR EVERYONE."

— SCOTT MILLAR, director for the AER's area-based regulation project

work and live in an area to come up with solutions, instead of addressing an issue after decisions have been made.

Will the AER get everything right on the first try? Unlikely, admits Millar. That's why the AER is going to test the concept by conducting a pilot in the Fox Creek area. The community and people have concerns about water use and seismic events in an area of the province with active development.

"It's a fundamental change for the AER, but also for our stakeholders and our industry," says Millar. "This evolution is going to take a lot of hard work and commitment on our part over the next few years. And we will learn from our first pilot and adjust along the way."

What is the ultimate goal?

Millar hopes that through a collaborative process, stakeholders and the AER will develop meaningful solutions to community-based issues.

The AER needs to look more closely at how multiple development activities could affect a specific area and at the cumulative effects of those activities over time.

animating conversations about the oil sands

The videos offer a solution to the unfamiliarity and confusion about energy development and regulation that many Albertans experience.

You shouldn't have to be an engineer, geologist, seismologist, or biologist to understand what's going on in Alberta's oil sands.

When Albertans asked for clear, straightforward information about oil and gas activity, we realized that we needed to communicate our work from a different perspective. It was time to pool our experts' knowledge and deliver the facts in a more creative and transparent way. Numerous brainstorming sessions later, *Conversations that Matter*, a six-part animated video series, was born.

Conversations that Matter gives Albertans easy-to-understand information about energy development and regulation in their province. Each episode makes sense of a complex, highly technical topic by presenting it in an accessible way: animation, plain language, candid storytelling, and relatable characters help break down technical material and industry terms for all audiences to understand.

The videos offer a solution to the unfamiliarity and confusion about energy development and regulation that many Albertans experience. Several studies conducted by the AER over the last decade reveal that Albertans continue to have specific concerns about oil sands development, including safety, environmental protection, and incident response.

With these key areas in mind, 45 industry and subject matter experts worked together to provide credible and objective information in a digestible format. Fran Hein, senior geological advisor, lent her technical expertise to the episode "How Big are the Oil Sands?" She said one of the project's greatest challenges was translating complex terms into more common language.

FIND CONVERSATIONS
THAT MATTER AT

the AER archive

coming together to go further

When energy regulation began in Alberta almost 80 years ago, it looked a lot different than it does today. The regulator had no environmental specialists, no aging consumers, or engagement experts – they came much later as the organization adapted and evolved. It took decades of experience and research for the AER to become what it is today. It has been a journey of continuous improvement to meet stakeholder needs, and we will continue to evolve in the decades to come.

Our work has drawn the attention of the world. Countries like China, Australia, Mexico, and even other Canadian provinces and territories, including New Brunswick, Nova Scotia, Newfoundland, the Yukon, and the Northwest Territories, all want to learn about the AER's strong regulatory practices and how we protect people, the environment, and the resource.

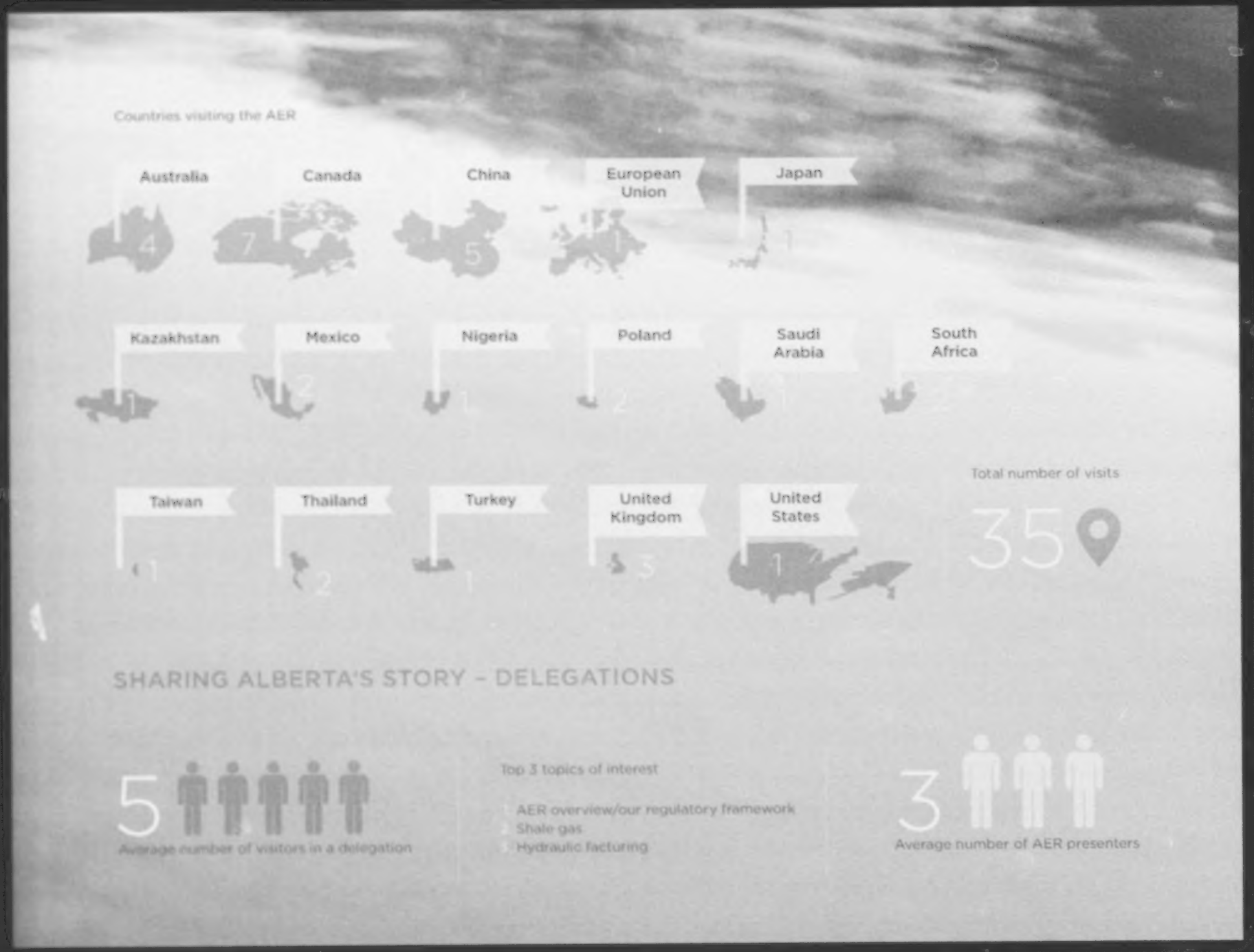
The last delegation to pass through our doors in 2016 was a group of Mexican officials led by Mexican Secretary of Energy Pedro Joaquin Coldwell and National Hydrocarbons Commission President Juan Carlos Zepeda Molina. For two days in December, the 15-member delegation participated in a workshop designed by the AER. Invited various oil and gas facilities in Alberta, and took in as much as possible about Alberta's oil and gas industry.

The visit, which was co-hosted by the provincial and federal governments and a few oil and gas companies, was considered a success by all. Consul General to Alberta Sharlo was very impressed with the program the AER helped put together for the officials and points out that "it is very uncommon for a delegation of this type to come to Canada, which clearly demonstrates trust in the AER."

Mexico is one of many countries the AER's Regional and International Relations Branch works with to tell our story. Last year we met with 30 delegations from 16 countries. The reason we've dedicated an entire branch to meeting with other countries is twofold: connect us with a popular African proverb: "If you want to go fast, go alone. If you want to go far, go together."

Any marathon runner will tell you that the key to endurance and strength is having the right people along the way to give you the support needed to make it to the finish line. By reaching out to others who share the same goals, understand our challenges, and are interested in strengthening their own regulations, we are building a support base that will give us the ability to go the distance for Albertans.

Telling the Alberta story far and wide helps it be understood, but it also helps to strengthen our own practices. With every meeting we have, we learn a little more about ourselves and our story, we exchange our reservoirs of knowledge and expertise, and we go further in our journey to excellence.


Countries visiting the AER
Australia
4
Canada
7
China
5
European Union
1
Japan
1
Kazakhstan
1
Mexico
2
Nigeria
1
Poland
2
Saudi Arabia
1
South Africa
1
Taiwan
1
Thailand
2
Turkey
1
United Kingdom
3
United States
1
Total number of visits
35
SHARING ALBERTA'S STORY – DELEGATIONS
5
Average number of visitors in a delegation
Top 3 topics of interest
1. AER overview/our regulatory framework
2. Shale gas
3. Hydraulic facturing
3
Average number of AER presenters

leader of the pack

Rondine Cabot, a 10 year veteran of the AER's inspection team, drops her four-year-old daughter off at daycare and climbs into her pickup to begin her commute to work. But today's drive isn't into her office in Edmonton; she'll be driving for three hours this morning to check on a high-risk sour gas facility near Fox Creek and an indigenous reserve.

Two days earlier, Rondine began her intensive investigation into the facility by checking Government of Alberta software programs to understand the full scope of the operation. She checked the company's *Water Act* approval to identify the company's maximum withdrawal rate so she could verify it during the inspection and checked for any environmental protection conditions the company must meet above and beyond the standard requirements.

She also combed through old records to see where the energy operator had been deficient in the past, if there had been any complaints from the public about it, and how they'd fixed those problems.

Those old inspection and complaint records are kept in an AER software program that details every piece of energy infrastructure in the province, whether it's an abandoned well or pipeline or a currently operating facility. The program also helps Rondine and the other AER inspectors focus on the wells, pipelines, mines, and facilities that pose the greatest threat to Albertans or the environment. The program identified this facility as high risk because it processes a high concentration of lethal sour gas.

"We look at everything," she said. "We start with anything that may affect public safety and go from there."

As Rondine makes her way northwest, she considers her plan of action for inspecting the site. The most important thing she'll look for: that the company has measures in place to protect the public and environment if something goes wrong.

"When I first get to a site, I look at the signage so the public can call them to respond if there's an emergency," Rondine said. "People need to know whose facility it is without having to go on the site."

Rondine pulls off the highway onto gravel roads toward the facility, knowing that although she's here to inspect the facility, if there's an oil and gas emergency nearby, she'll be responding to that instead. She needs to be able to react at a moment's notice to energy incidents.

"If there's an emergency, the first thing we do is make sure the operator has enacted their emergency response plan. But we always send the person that's closest to respond."

And sometimes that means helping out other field offices if the emergency is near the office boundaries.

"We have the flexibility to go where we see the need," she added.

Thankfully, major incidents in the energy industry are rare; there were just four well blowouts and 1.17 pipeline spills for every 1000 km of pipeline in the province in 2015. And on this day, Rondine makes it to the sour gas facility without being called away.

As she inches her way up the rutted, muddy lease road in her pickup, our logo—the shield depicting Alberta's diverse landscape and bold black letters spelling out Alberta Energy Regulator—is immediately recognizable to the men in blue coveralls and hard hats working at the plant. And as Rondine steps out of her truck in her light grey, AER-branded personal protective equipment, she stands out in stark contrast.

Rondine makes her way to the office on site. The plant manager stands from his desk, shakes her hand, and introduces himself.

"We're usually received by operators very well," Rondine says. "There have maybe been two times in my 10 years that I haven't been.

"WE HAVE THE AUTHORITY TO SHUT A COMPANY DOWN. THERE ARE A LOT OF TOOLS AT OUR DISPOSAL TO MAKE SURE ENERGY COMPANIES FOLLOW THE RULES: WARNINGS, MORE INSPECTIONS OF THEIR FACILITIES, FINES, ETC."

– RONDINE CARDY, AER regional coordinator

"They understand my job isn't to get people into trouble; it's to help them find areas where they can improve. Whether it's because of the impact to the public or environment or because of the cost to clean it up, nobody wants spills to happen."

So the inspection begins and Rondine has become the leader of the pack.

"They usually like to walk around the site with us to see what it is we're looking for; to make sure that they're following the rules."

Nearly four hours later, after explaining numerous AER requirements to the operators, Rondine's inspection is complete. The facility has some minor deficiencies, but nothing that put the public at risk. Rondine will have to check in on them again soon to make sure they've been fixed.

And if it's not?

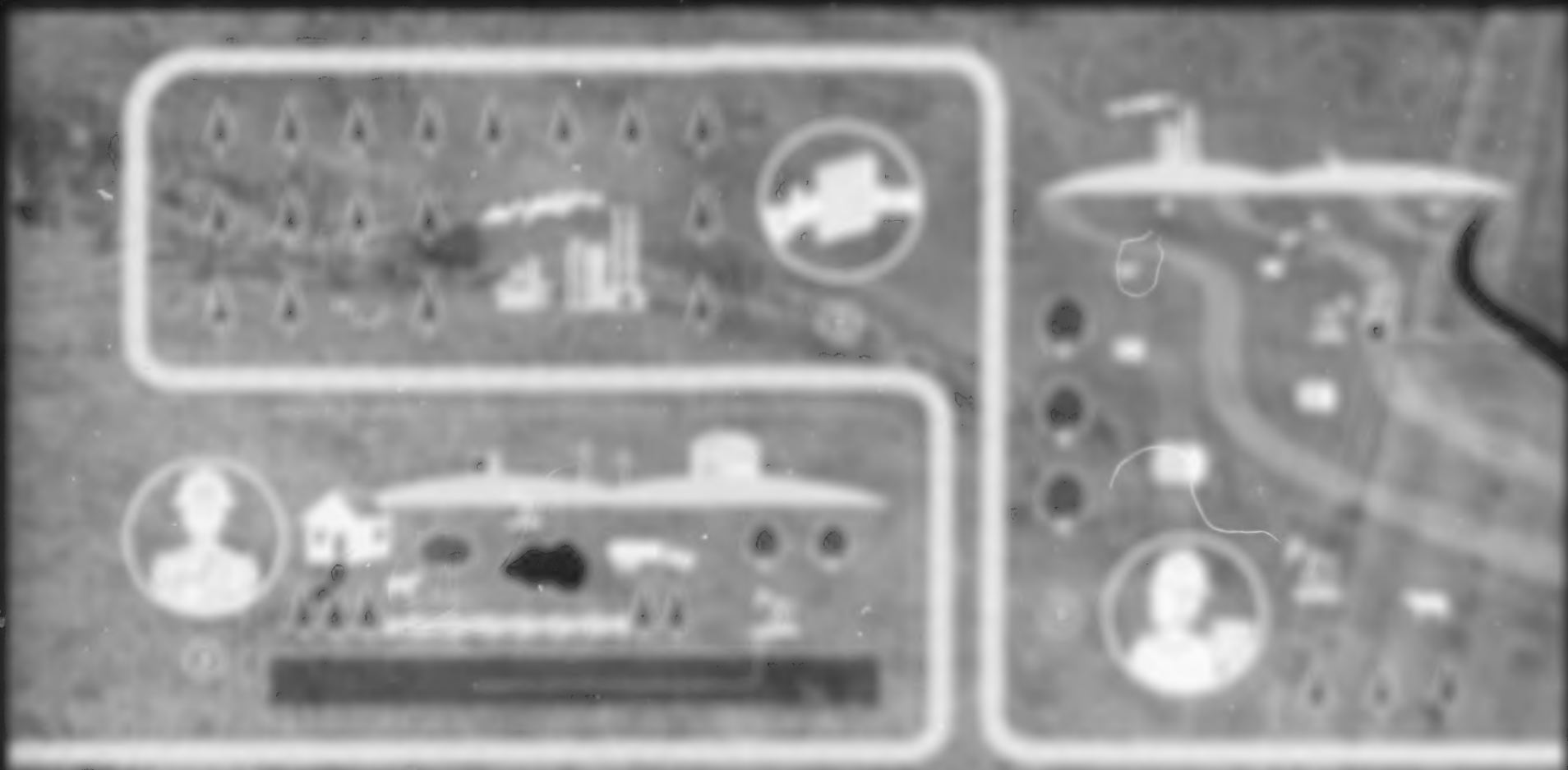
"We have the authority to shut a company down. There are a lot of tools at our disposal to make sure energy companies follow the rules: warnings, more inspections of their facilities, fines, etc."

"But one of the most effective ways is to shut them in. If they can't produce, they can't make any money. And that's a big incentive to follow the rules."

Rondine's story represents one of the 11 216 inspections the AER conducted in fiscal 2015/16. AER staff wield significant power when it comes to ensuring Alberta's energy industry follows the rules, and industry personnel recognize that.

Big-Picture Thinking

THE BLUEPRINT



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Can you give a specific example of a regulatory change?

A great example of changes that brought about significant results at no risk to public safety or the environment is what we've done to Directive 017: Measurement Requirements for Oil and Gas Operations. We improved to advances in oil and gas measurement technology by revising requirements in the directive to make them more relevant. The changes to Directive 017 will also result in estimated annual savings of over $200 million for industry.

How has the program benefited industry: what results have you seen?

There are three main benefits to industry from this program: lower operating costs, lower capital costs, and fewer regulatory delays, that allow companies to bring projects into operation faster, which in turn provides economic benefits.

We estimate that in fiscal 2015/16 alone, the program is delivering around $400 million of annual savings for industry.

It sounds like a great deal for the companies, but what do Albertans get from it?

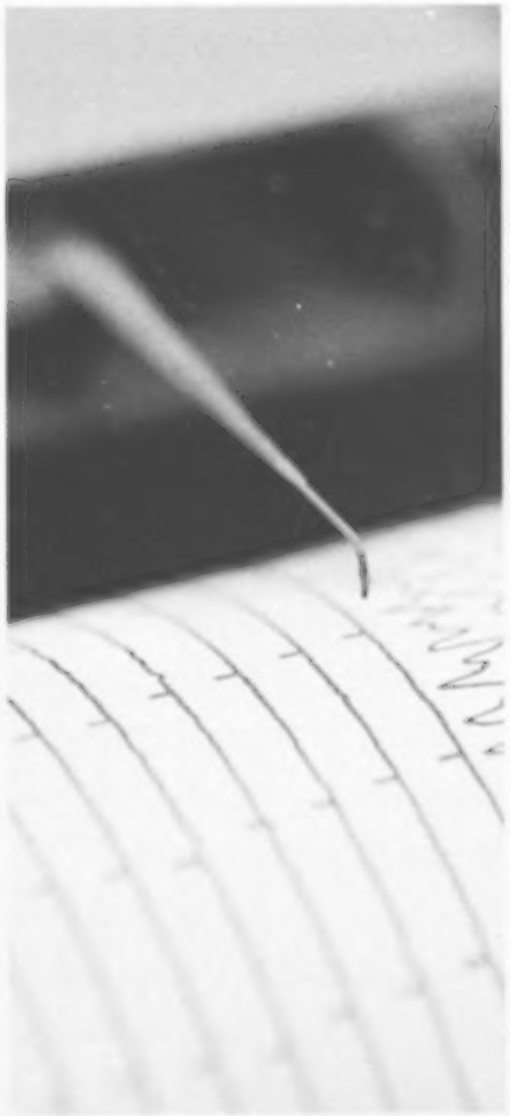
By simplifying and integrating requirements, we've improved both the relevance and quality of information that companies report to us, which helps us better monitor whether they're complying with the conditions set out in environmental approvals.

The changes we are making to ensure regulation is relevant, efficient, and timely not only protect the environment and public safety but also enable industry to maintain its cost competitiveness and contribute more to Alberta's economy in terms of royalty payments, taxes, and jobs.

The AER talks a lot about regulatory excellence. Does this fit in somehow?

Absolutely it does. First, ensuring that companies are not facing needless regulatory burden is part of being an excellent regulator.

Second, an excellent regulator listens to feedback and actively seeks out and addresses outdated requirements. One of the attributes the AER identified for regulatory excellence was "stellar competence," which means that we have the necessary expertise to do our jobs well. Through RISAP, the AER's experienced technical and regulatory specialists lead young, enthusiastic, and innovative staff to not only deliver better requirements, but also to develop future leaders.



learning why the earth moves in Fox Creek

Residents of Fox Creek felt the ground tremble on January 12, 2016. The reason: a 4.8 magnitude (M_L) earthquake just 35 km from the northern Alberta town.

The quake was the fourth over 4 M_L to shake the area in the past year, all linked to hydraulic fracturing in a province that, traditionally, has been relatively quiet on the earthquake front.

When it hit, seismologists at the AER's Alberta Geological Survey Branch (AGS) were assessing data from previous earthquakes in the Fox Creek area as part of a formal study into "induced seismicity," earthquakes that are triggered by human activity. The latest earthquake would provide them with even more data to analyze.

The AGS is using data from more than 53 monitors that measure seismic activity across the province, and the January event showed up on monitors almost immediately.

The activity also caught the attention of area residents, the media, and Alberta Premier Rachel Notley, who asked the researchers to provide an interim report this spring. The study's final report is due to be published in November 2016.

"Our initial findings indicate a strong link between geological features in the area, for example faults and ancient fossil reefs, and induced seismicity," said AGS geoscientist Todd Shipman, manager of the Landscape and Geological Hazards Group.

"We need to continue to study the links between hydraulic fracturing operations, geology, and geomechanics and their effects on induced seismicity," said Kristine Haug, AGS geological engineer. "This information will be included in the final report."

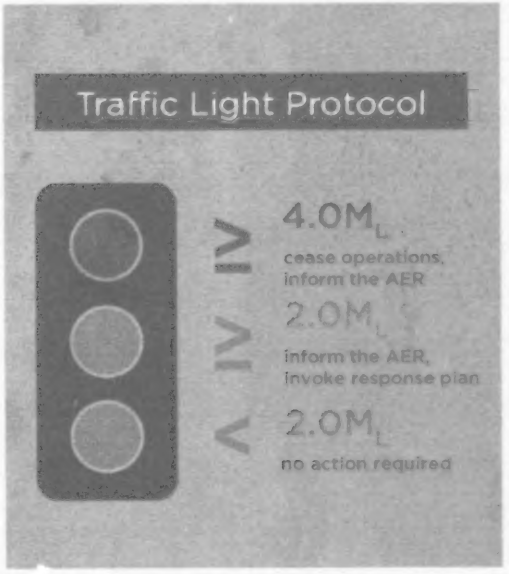
And while none of the earthquakes linked to hydraulic fracturing have caused any impact to infrastructure or the environment, energy operators in the area continue to be bound by AER's *Subsurface Order No. 2* when hydraulically fracturing in the area.

Using a traffic light protocol, licensees fracturing in the Duvernay Zone in the Fox Creek area must monitor seismic activity and report any earthquakes within 5 km of their wells during hydraulic fracturing operations. They must also have a response plan and be prepared to apply that plan to any induced seismicity above 2.0 M_L.

If monitoring picks up an earthquake of 4.0 M_L or greater, they must immediately cease operations and report it to the AER. They will not be allowed to resume operations without AER approval.

"WE NEED TO CONTINUE TO STUDY THE LINKS BETWEEN HYDRAULIC FRACTURING OPERATIONS, GEOLOGY, AND GEOMECHANICS AND THEIR EFFECTS ON INDUCED SEISMICITY."

—KRISTINE HAUG,
AGS geological engineer



protecting Albertans, one oil and gas well at a time

These are difficult times in Alberta, particularly for those that work in the oilpatch and for companies that develop energy resources in Alberta.

With the sharp drop in global oil and gas prices, some companies are finding it more economical to stop producing to save money, or possibly avoid bankruptcy. But this leaves thousands of wells, pipelines, and infrastructure sitting inactive on Alberta's landscape. In tough times, it's vital that the AER is on the job to ensure our rules are followed so that companies, not Albertans, clean up and maintain this infrastructure.

We recognize that in times such as these, we must make certain that Albertans are protected, while ensuring that the companies we regulate face no unnecessary fiscal pressure. Over the past year, we've implemented programs and proposed changes to our requirements to meet this challenge.

INACTIVE WELL COMPLIANCE PROGRAM

Last year, we launched the Inactive Well Compliance Program (IWCP) to address a backlog of 30 000 inactive wells in the province that don't comply with our rules. A well is considered inactive when it has been idle for 6 or 12 months, depending on its type. In the past, we identified inactive wells and whether or not they met our requirements on a case-by-case basis. Before the IWCP began, we didn't have a full picture of the number of inactive wells across the province.

"The IWCP is supported by a specially designed system that's helped us pinpoint which wells are active, inactive, and suspended. To date, nearly 11 000 wells have been brought into compliance with our suspension requirements," said David Hardie, a senior advisor with the Closure and Liability Branch. "At this rate, we're on track to bring all 30 000 wells in the program into compliance within five years."

DIRECTIVE 013 UPDATE

Operators can take one of three actions to bring inactive wells into compliance with our requirements: reactivate it, suspend it indefinitely, or permanently abandon the well. To suspend a well, operators must do pressure tests and inspections to ensure it's not leaking oil, gas, or other substances, such as hydrogen sulphide gas.

Directive 013: Suspension Requirements for Wells outlines our requirements for pressure tests and inspections, among other suspension, monitoring, and reporting requirements. We asked Albertans to provide feedback on proposed changes to *Directive 013*, which includes extending the deadline for operators to complete suspension work and submit the inspection results to us from 60 days to 12 months.

"We believe these changes and the IWCP will allow companies to focus on conducting inspections and pressure tests on multiple inactive wells by region, rather than on a one-on-one basis," said Hardie.

CHANGES TO LICENSEE LIABILITY RATING (LLR) PROGRAM

As part of our commitment to public safety and the environment, we've updated our Licensee Liability Rating (LLR) Program to better reflect the costs of abandoning and reclaiming inactive wells and facilities across the province. The program is designed to ensure Albertans do not pay for abandonment and reclamation. For instance, when a company's liabilities are greater than its assets, it must pay us a financial security to cover all abandonment and reclamation costs.

"We require oil and gas companies operating in Alberta to participate in the LLR program. If a company does not pay their financial security, we can take a number of actions against the company which can include issuing orders to companies that require them to suspend or abandon a well," said Hardie.

"THE WORK OF THE AER AND THE OWA IN IDENTIFYING ORPHAN FACILITIES SUCH AS WELLS AND PIPELINES, AND ENSURING THEY ARE ABANDONED AND RECLAIMED PROPERLY, IS HIGHLY COMPLEMENTARY."

2015/16 REPORTING ON OUR RESULTS

ACHIEVING
EXCELLENCE
IN ENERGY
REGULATION

our path to excellence

From the time the AER was created, our vision was to achieve excellence, to strengthen and improve Alberta's regulatory system.

To accomplish this, we knew we had to define what excellence meant. We also knew we'd need help making it happen.

In November 2014, we turned to the experts at the internationally renowned University of Pennsylvania's Program on Regulation (PPR) to help identify the key attributes of an excellent regulator, understand how the AER can adopt these attributes, and measure our progress. The excellence initiative generated a significant amount of work. The PPR delivered 6 core research papers, 15 expert papers, and an interim report that generated international discussions on this notion of regulatory excellence.

At the same time, we wanted to ensure that any model we adopted reflected the unique values and expectations of the people who live and work in Alberta. For this, we tapped into the knowledge of Albertans, indigenous peoples, and our diverse stakeholders through a series of dialogues hosted by PPR in the spring of 2015.

These sessions were not stakeholder consultations but opportunities to share our common vision for Alberta and discuss how we work together to develop our energy resources in a manner that is safe, environmentally responsible, and respectful of all viewpoints. This approach allowed us to learn from academics and experts in the field of regulation while understanding what excellence means to Albertans.

We aren't the first organization to state our intent to be "excellent," nor are we the first to engage experts to help us define what that is. However, we wanted to do more than an internal assessment of our work; we wanted to show leadership and invest in a universal model, one that could be shared with regulators the world over.

In fall 2015, the final, peer-reviewed report was released, entitled *Listening, Learning, and Leading: A Framework for Regulatory Excellence*.

The report identified three core attributes of an excellent regulator—empathic engagement, utmost integrity, and stellar competence—and presented a model of regulatory organization, action, and performance.

While we had begun to identify how the report's findings could be applied in Alberta, we knew that we needed to continue to seek input on our path to excellence. Using the information we gathered from

MADE-IN-ALBERTA EXCELLENCE

2014 November
University of Pennsylvania's Program on Regulation (PPR) consulted

6 research papers

15 expert papers

1 interim report

2015 Spring
dialogues were hosted by PPR

2015 Fall
final report released

Attributes for Excellence

For the AER, **UTMOST INTEGRITY** means that we are accountable as a protective, effective, efficient, and credible energy regulator that is fair and unbiased. The AER adheres to Alberta government policy and takes a leadership role in identifying policy gaps where they exist. We make evidence-based decisions that consider the environment, the unique nature of the energy development, traditional knowledge, and information brought forward by local communities.

STELLAR COMPETENCE means our people have the required expertise and the necessary tools to carry out their responsibilities, which underpins the AER's ability to achieve its outcomes while adapting to new risks and opportunities. We will seek expertise and information outside of our organization to make well-informed decisions. In this way, we are able to deliver outcomes, measure and report on our performance, and continuously improve.

The AER is committed to respectful external and internal engagement. For us, **EMPATHIC ENGAGEMENT** means working together so that we can make fully informed decisions and build strong relationships. We are straightforward about the issues, listen carefully, respond respectfully, and ensure our decisions are understood. We know that to build and maintain relationships, we must be fair, inclusive, and transparent.

previous dialogues and research, we continued our conversation with Albertans, indigenous peoples, stakeholders, and AER employees. We wanted to test our own understanding, make sure we got it right, and develop a made-in-Alberta version of this framework for regulatory excellence. We asked for honest feedback on how we were performing against the excellence framework and where we could improve.

People overwhelmingly supported the model and provided an honest assessment of our priorities, gaps, and performance. We learned that we can

- be more open and transparent;
- better explain how decisions are made and the reasons for our decisions;
- improve our relationships with Albertans, indigenous peoples, and stakeholders;
- clarify our internal processes and priorities, including employee roles and responsibilities; and
- ensure that our employees have the skills and tools they need to carry out their responsibilities.

We learned that we can

- **be more open and transparent;**
- **better explain how decisions are made and the reasons for our decisions;**
- **improve our relationships with Albertans, Indigenous peoples, and stakeholders;**
- **clarify our internal processes and priorities, including employee roles and responsibilities; and**
- **ensure that our employees have the skills and tools they need to carry out their responsibilities.**

We learned that there are areas where the model needed to adapt to our specific circumstances, we heard that we must measure our performance and deliver on key outcomes to be successful.

Our final model provides us with clear definitions for utmost integrity, empathic engagement, and stellar competence—the three core attributes. It shows how we can put those attributes into action as we adopt consistent processes, build a strong culture, engage our stakeholders, and make decisions informed by risk. This, in turn, allows us to drive industry to protect public safety and the environment, while still securing economic benefits.

With the attributes for regulatory excellence defined and a model clearly developed, we now begin to turn our aspiration for regulatory excellence into tangible actions. By establishing clear outcomes, a comprehensive strategic plan, and detailed work plans, and by committing to measuring and reporting on our performance, we will continue to work with Albertans, Indigenous peoples, stakeholders, our employees, and the international community to embody regulatory excellence in all that we do.

From the outset, this initiative was about more than receiving a title of "excellent"; it was about becoming a regulator that continually improves its work, builds strong relationships, and leads the next era in energy regulation. Excellence is the means of creating a strong, fair, transparent, and inclusive regulator that delivers measurable outcomes for this province.

what I learned about excellence

Tiffany Haruna, director of the Transformation Management Office, shares what she learned from her work on the ASIF's regulatory excellence project.

Much work is done in the workplace, but no one can be accountable on their own. The ASIF is no different. We aspire to excellence, and the way we achieve that is by working together.

I would be so personally more efficient and effective if I could do it myself. But I've learned that I can't. I've had to weigh in on our model for regulatory excellence.

More than 3,000 people across the province have come and worked our hearts, when the ASIF's all project to the three thousand on they weren't planned. Frameworks for excellence, worked out a priori and for human against their statements, and shaped their key priorities.

What I've learned is that we've all to find we've worked together, explained what each person brought to the table, and truly listened to ensure we have a holistic view of what regulatory excellence is.

I can't say I had a great time seeing a part of this initiative, and I'd like to share a few lessons I learned along the way.

There are many ways to involve people – a nice digital way means new expectations for engagement. Through workbooks, an online engagement tool, social media, a web survey, and face-to-face consultations across the province, we used a broad net to hear from diverse groups of people (including our employees, industry associations, professional bodies, municipalities, industry, non-profit, environmental, and more) about their experiences, priorities, and more.

Vulnerability is powerful – we knew we could not simply declare ourselves "excellent" through the work, to understand what regulatory excellence meant we needed help. This means admitting we're not perfect and asking others what they think. It means listening, even if we disagree, to collectively define regulatory excellence and develop a model that we can continually measure ourselves against.

Listening was more – we had to sit down and listen to what our stakeholders had to collectively set this huge direction. Through this initiative, we conducted more than 20 research reports, gathered key qualitative assessments from across the globe and listened to more than 1,000 people. We are confidently say that we have learned by including the public and our employees in creating our work moving.

We have to walk the talk – once you put the work out, that's what you get answers, you need to

MOVING
FORWARD

a world-class resource

Alberta's energy resource reserves are among the world's largest and include bitumen, crude oil, natural gas, natural gas liquids, and coal.

Tapping into its abundant hydrocarbon resources at the lowest cost, with minimal environmental impact, Alberta produced 3.6 billion barrels in 2015, truly a world-class resource. To put things in perspective, 3.6 billion barrels of bitumen have been consumed since the late 1960s.

At 923 million barrels (or 2.5 million barrels per day), raw crude bitumen production accounted for 83 per cent of Alberta's crude oil and bitumen production in 2015. Bitumen production in 2015 increased by 12 per cent for mining projects, resulting in an overall raw bitumen production increase of about 10 per cent over 2014.

Of the total bitumen production, 649.8 per cent was used as feedstock for upgraders, yielding 378 million barrels per day of upgraded production. Alberta refineries processed 373 thousand barrels per day of upgraded bitumen and 64 thousand barrels per day of unupgraded bitumen.

In Alberta, crude oil production declined by 9 per cent in 2015. Conventional natural gas reserves were 69 trillion cubic feet (Tcf) in 2015, while total production was 3.6 Tcf. Natural gas faced 2015 production increases by 3 per cent in 2015.

In 2015, our remaining established reserves of coal amounted to 37 billion tons, while only 30 million tons of marketable coal was produced.

A study conducted by the regulator in 2012 examined the total raw hydrocarbon resources that's shale and estimated to be a very large environment potential energy supply for Alberta and the world. Best estimates put the in-place resource at 5404 Tcf of gas, 1815 billion barrels of NGLs, and 1633 billion barrels of crude oil.

Alberta's energy resources significantly contribute to each Alberta's and Canada's economies. In 2015, the value of our energy resource production was $61 billion. Amid the current low crude oil and natural gas price environment, the contribution of energy resources to Alberta's economy is expected to be lower in 2016. However, the AER forecasts that after 2016, the value of energy commodities will rebound to higher levels with the return of stronger oil and natural gas prices.

ALBERTA'S RESOURCES (2015)

67 billion barrels
value of production in Alberta

165 billion barrels
remaining established bitumen reserves

923 million barrels
raw crude bitumen production

83%
Alberta's total crude oil & bitumen production

29 Tcf
conventional natural gas reserves

3.6 Tcf
total conventional natural gas production

drivers for change

We know that our stakeholders play a crucial role in the regulatory process, and through our work on the MultiStakeholder Engagement Advisory Committee and discussions about regulatory excellence, we have learned a great deal about the importance of building stronger relationships and working collaboratively with Albertans, Indigenous peoples, and stakeholders.

There's little doubt that the energy development landscape has changed just as the economic reality of persistent low oil prices has impacted the industry we regulate. Regardless of the economics, we must ensure we protect what matters to Albertans—public safety and the environment—while responding to new technologies and challenges.

Change happens rapidly in the energy sector. Consider where we were in 2000: in situ development was just beginning and we had a customer on our southern border thirsty for our crude. Stakeholder concerns were local and usually limited to those directly impacted by development. In a province dominated by conventional oil and gas development, we focused on prescriptive regulatory approaches that addressed known risks and historical issues, and that worked pretty well.

Today in 2016, our biggest customer has become a major energy producer—in 2014 the United States posted the largest production increase on the planet and reduced its demand for imported oil. Oil prices continue to slump as demand declines while the global community questions the use of fossil fuels and demands action on climate change. Add to that the focus on Alberta's oil sands by news outlets and social media that has thrust us onto the world stage.

Then we have advances in technology, putting multi-stage hydraulic fracturing and in situ development at the forefront as single wells are replaced with large-scale projects that bring new challenges, risks, and opportunities.

If Alberta is to address new technology, meet changing stakeholder expectations, and compete in the global market, we must change how we operate.

When the government brought together three strong regulators to form the AER in 2013, it was about building an entity capable of ensuring public safety, protecting the environment, managing cumulative effects, confronting new risks, and seizing new opportunities.

We've managed the transition well, and we have accomplished much in almost three years. But we must continue to change, seek excellence, and work with Albertans to manage our energy resources today and beyond.

We must ensure Albertans are protected from the environmental and financial consequences of inactive or abandoned wells as companies grapple with the reality of low oil prices, and in some cases face bankruptcy. We must protect our water resources

and minimize the impacts of development on our landscape, all within the policies government sets to manage our land.

And, we must ensure that the AER delivers results on Alberta's Climate Change Action Plan as we work with industry to reduce methane emissions by 45 per cent by 2025.

This work is important to Alberta and the people who live here. Public opinion research conducted in 2016 indicates that awareness of the AER has increased and that Albertans are expressing confidence in the AER's ability to deliver on its mandate. To keep that confidence, we must remain accountable through open, transparent information about our work and our performance. Albertans expect the AER to focus our efforts on public safety, enforcing our rules, and protecting the environment.

We know that our stakeholders play a crucial role in the regulatory process, and through our work on the Multistakeholder Engagement Advisory Committee and discussions about regulatory excellence, we have learned a great deal about the importance of building stronger relationships and working collaboratively with Albertans, indigenous peoples, and stakeholders.

Alberta Energy Regulator

an evolution—our 2016-19 strategic plan

The AER has had to adapt to changes in technology and stakeholder expectations, refine and achieve regulatory excellence, and deliver a strategic plan that allows us to adapt to shifting circumstances yet remain focused on our vision.

The Alberta Energy Regulator is recognized for regulatory excellence, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.

Regulatory excellence is the overarching vision under which we do all of our work—the step to stay delivery of our mandate and our focus on a strategic plan that moves us closer to being truly protective, effective, efficient, and credible.

The AER is expected to protect public safety and the environment, while ensuring economic benefits for all Albertans. We have a clear strategy to deliver on our mandate, reach our vision of regulatory excellence, and achieve results for the AER and our many stakeholders.

Protecting Alberta and the people who live here is important work, and the 2016-19 strategic plan helps us identify our key priorities and establish clear performance measures to ensure we stay on track and demonstrate our results. The plan is updated each year and is designed in a way that allows us to respond to new challenges and take advantage of emerging opportunities.

The energy development landscape is changing rapidly, driven by economic circumstances, advances in technology, and changing expectations around environmental protection and managing cumulative effects. The AER understands that we must ensure energy resources are developed:

- safely, to protect the public;
- responsibly, to protect the environment; and
- efficiently, to manage the costs of regulation.

The strategic plan includes our strategic priorities, strategic and focused outcomes, performance objectives, and targets against which the AER and others will monitor our progress and measure our success. It reflects our mandate and helps drive us to our vision by being protective, effective, efficient, and credible.

PROTECTIVE

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EFFECTIVE

[illegible]

PROTECTIVE

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EFFECTIVE

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2016–19 STRATEGIC PLAN

The AER is responsible for ensuring that the public and the environment are protected. We have a clear strategy to fulfill our mandate, reach our vision of regulatory excellence, and deliver results for Albertans, Indigenous peoples, and our many stakeholders.

To develop our new 2016–19 strategic plan, we didn't start the work we need to focus on based on our four pillars of protective, effective, efficient, and credible. The plan includes our strategic priorities, outcomes, and performance measures to ensure we stay on track and demonstrate our results.

Ensuring water is used in a sustainable fashion, reducing the inventory of aging infrastructure, lowering methane emissions, making certain abandoned wells safely and effectively, engaging our stakeholders and all Albertans are just a few of the outcomes we will work to achieve in the 2016–19 strategic plan.

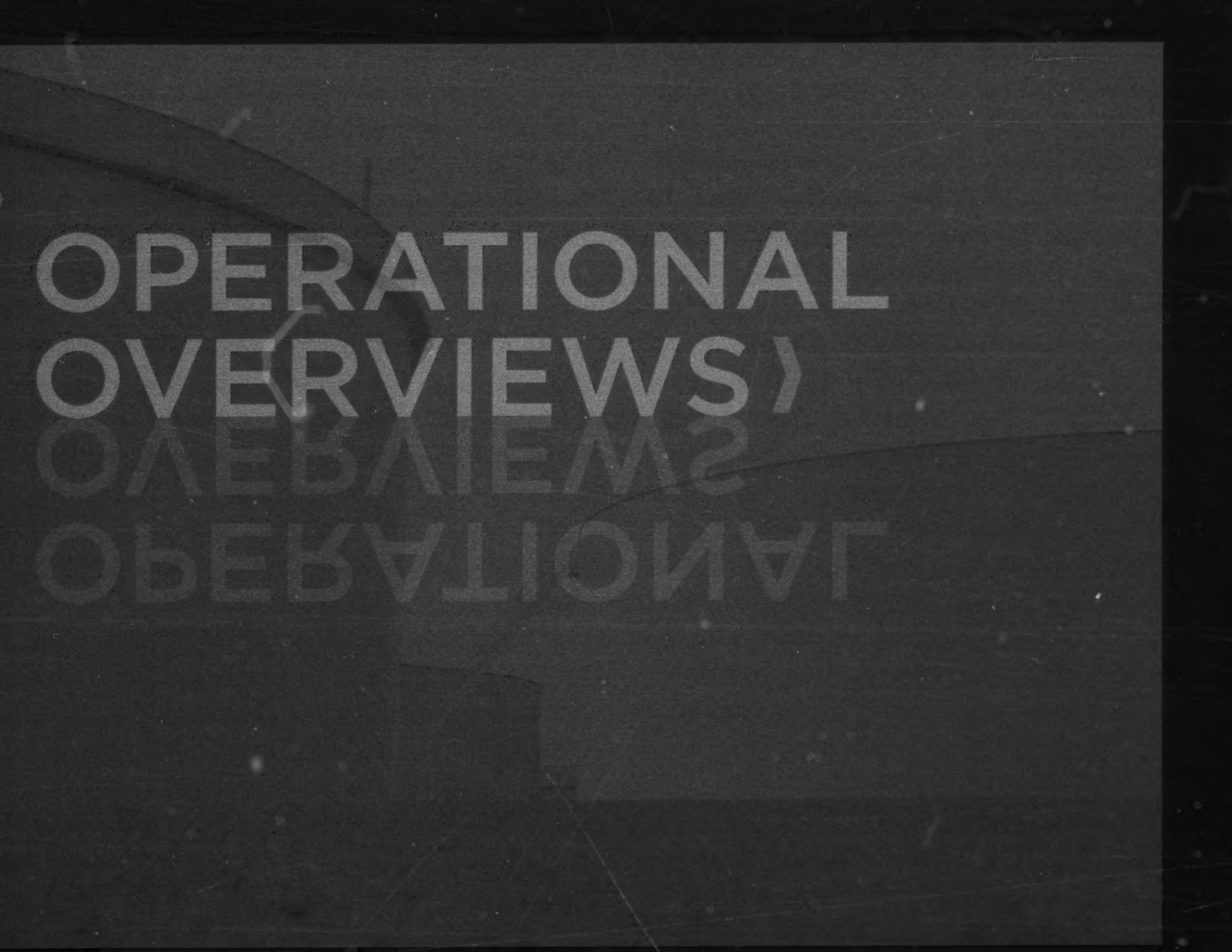
We will be updating this plan every year to ensure we can adapt to the changes taking place around us—from new technology to evolving stakeholder expectations—all while demonstrating how the AER's work ensures the safe, environmentally responsible development of Alberta's energy resources.

STRATEGIC PRIORITIES
STRATEGIC OUTCOMES
PROTECTIVE
Develop an integrated whole-system regulatory approach
Effective management of public safety and
EFFECTIVE
Streamlined risk-based regulation
Effective management of resource conservation and minimize financial liability on Albertans
EFFICIENT
Transform Alberta's energy regulatory system to improve efficiency
The regulatory system is efficient, minimizing duplication, with highly efficient processes, and only intervening to the level necessary
CREDIBLE
Increase trust and confidence in how energy is developed in Alberta
Stakeholders are confident about how energy is developed in Alberta

FOCUSED OUTCOMES	PERFORMANCE MEASURES	PERFORMANCE TARGETS
Sustainable water use	Volume of all water used (by source) for hydraulic fracturing, enhanced oil recovery, in situ oil sands, and mineable oil sands	Public reporting of water use by industry
Reduce fluid tailings accumulation over mine life	Total annual volume of fluid tailings, treated fluid tailings, fines captured	Ensure industry complies with established performance standards
Climate change – reduce methane emissions	Volume of methane emissions	Support multistakeholder engagement process to facilitate early action on methane reduction
		Ensure industry complies with established performance standards
Climate change – oil sands emissions	Volume of oil sands emissions	Establish a tracking and reporting system for oil sands emissions
Reduce aging inventory liability	Complete a risk assessment of energy-related infrastructure by March 2018	Address high-risk items as they are identified
Pipeline safety	Number of high-consequence pipeline incidents	2% reduction in high-consequence pipeline incidents from the previous two-year average
Regulatory efficiency	Stakeholder savings resulting from reduced regulatory burden that does not negatively impact the environment or public safety	$100 million in savings to stakeholders in fiscal 2016/17
	Improve efficiency of AER application decisions	Conduct two pilot projects to evaluate the proof of concept for the single application and approval process by March 31, 2017
Effective engagement of Albertans, Indigenous peoples, and stakeholders	Percentage of Albertans aware of the AER who express confidence in the organization's ability to fulfil its mandate	80% confidence score
Achieve regulatory excellence	Incorporate key attributes of regulatory excellence	Begin implementing the AER model for regulatory excellence
	Level of skills and competencies	Address high-priority skill and capability gaps through the implementation of a Centre of Regulatory Excellence in 2016/17
	Employee engagement	Achieve 83% engagement in 2016/17
The AER is an integral partner in the Integrated Resource Management System	Percentage of IRMS strategic priorities supported by the AER	100% of IRMS strategic priorities supported by the AER

VISION

The AER is recognized for regulatory excellence, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.


OPERATIONAL
OVERVIEWS

OPERATIONS DIVISION

The Operations Division is divided into sector and function branches.

- Industry Operations focuses on the resource itself, on working with industry, and on achieving Government of Alberta policy outcomes. Industry Operations includes four sectors:
  - Oil and Gas (conventional, unconventional, geothermal, and other infrastructure)
  - In Situ
  - Mining (oil sands and coal)
  - Pipelines (all pipelines)
- The vice president of Industry Operations leads teams that are responsible for setting day-to-day priorities that align with the strategic plans and priorities of the AER.
  - Function branches focus on the mechanics: how things get done.

    This is where our technical and process experts reside; they work with their colleagues in the sector branches to ensure that we are applying efficient, standard processes to the various sectors we regulate. Function branches include the Authorizations Branch, Environment and Operational Performance Branch, and Closure and Liability Branch.
- Vice presidents of function branches are accountable for defining how the work gets done, for balancing consistency and effectiveness, and for responding to the unique needs of the sector teams.
  - The Authorizations Branch delivers project approvals and permits that focus on the start of new resource developments.
  - The Environment and Operational Performance Branch promotes compliance through education, prevention, and enforcement-focused programs. Its core functions include emergency management, incident response, compliance assurance, and compliance program design.
  - The Closure and Liability Branch oversees the end-of-life aspects of energy developments, which includes protecting Albertans from potential environmental issues and costs related to abandoning and decommissioning energy infrastructure.

STRATEGY & REGULATORY DIVISION

The Strategy and Regulatory Division identifies and manages issues, risks, and opportunities while steering the AER's regulatory development.

The division's staff

- use science and fact-based evaluation and forecasts to identify and manage issues, risks, and opportunities;
- manage the regulatory development process; and
- develop and implement the AER's enterprise, strategic, and corporate operations plans.

The Strategy and Regulatory Division comprises five branches and one group that help to deliver expertise to the AER:

- The Major Projects and Transformation Branch oversees major AER projects and transformation initiatives.
- The Regulatory Operations and Economics Branch makes sure that we deliver consistent, predictable, and transparent regulatory change. This branch implements practical operating procedures for regulatory development and reports on energy statistics, including forecasting and data on cumulative land impacts.
- The Reserves and Resources Branch monitors and reports on current and reliable indicators in energy resource, environmental, and social outcomes related to energy development at the reservoir to play-based scales.

- The Alberta Geological Survey is a branch that provides the AER with scientific peer-reviewed research, maps, and reports on Alberta's geology, earth resources, geological hazards, and groundwater at the regional scale.
- The Climate Policy Assurance Team is responsible for assigning and delivering on the Government of Alberta's climate change policy direction by developing and implementing an effective and efficient regulatory framework.
- The Enterprise Planning Group facilitates the process of enterprise planning and prioritization, using risk and performance management, ensuring that initiatives and projects are aligned with our mandate and vision.

STAKEHOLDER & GOVERNMENT ENGAGEMENT DIVISION

The AER recognizes stakeholder engagement as a key attribute of regulatory excellence and strives to build relationships with Albertans, Indigenous peoples, stakeholders and our government partners. The Stakeholder and Government Engagement division supports all AER work through engagement, relationship building, information sharing, and collaborating with people and groups who are interested in or may be impacted by the AER's decisions.

A solid understanding of different perspectives and interests helps the AER to define priorities, develop solutions, improve our work, and make better, more informed decisions. The AER's engagement activities support stakeholder participation in regulatory development and decision making at many different stages in the development of Alberta's oil and gas resources. Building stronger relationships results in more transparent, cooperative, and productive conversations. Our division builds mutually beneficial relationships through six branches:

- Alberta Government Engagement works with AER staff and our Government of Alberta partners to ensure that policy development and regulatory delivery for development of Alberta's energy resources are integrated and aligned with each other. The branch provides strategic advice and engagement expertise to all areas of the organization with respect to the Alberta Government.
- Alberta Stakeholder Engagement (ASE) engages our diverse stakeholders and Indigenous peoples to understand how they are affected by, or concerned about, energy development in Alberta. This engagement informs how the AER responds to issues and concerns. ASE connects with people across the province through community outreach and alternative dispute resolution specialists.
- Regional and International Relations leads and facilitates engagement with Indigenous governments and organizations to inform the AER's regional and international perspectives. The AER is committed to benchmarking national and international leadership in regulating energy resources by learning from and sharing best practices and knowledge with our peers across Canada and around the globe.

[illegible]

CORPORATE GOVERNANCE

How an organization is governed determines how it carries out its daily business and how successful it is at achieving its goals. For this reason, corporate governance was a key consideration when the AER was created in June 2002.

The AER's governance structure separates the corporate, operational and governance responsibilities from adjudicative functions (hearings on energy applications). Through this model, the AER seeks to realize its full potential as the single regulator of Alberta's energy resource development, as well as gain the confidence of its many stakeholders.

BOARD OF DIRECTORS

At the helm of the AER and leads a board of directors, none are involved in the AER's day-to-day operations or decisions. Rather, these directors set the general direction of the regulator's business affairs, including approval of the strategy and budget. The directors are also charged with assessing regulatory change and setting performance expectations for the AER and its president and chief executive officer in the way the AER's board operates as a truly balanced, right model.

PRESIDENT AND CHIEF EXECUTIVE OFFICER

The president and chief executive officer, who reports directly to the chair, is accountable for day-to-day operations, which include reviewing and making decisions on applications, overseeing and investigating energy resource activities for compliance, and overseeing reclamation and remediation of energy developments at the end of their life cycle.

HEARING COMMISSIONERS

Hearing commissioners are responsible for conducting all hearings into energy applications and regulatory appeals. Reporting to a chief hearing commissioner, they are independent adjudicators and operate free of political interference. Their decisions may only be reviewed by the Court of Appeal of Alberta.

board of directors

BOARD HIGHLIGHTS

During the eight meetings the AER's board of directors held throughout the 2015/16 fiscal year, the board approved changes to the 2016-19 strategic plan and approved the 2016/17 budget. Additionally, the board approved several rule changes relating to regulatory instruments and administration and orphan levies while it monitored the AER's progress on delivering on the strategic plan's four key priorities.

The board strongly supported and endorsed both the Regulatory Excellence Project and the Centre of Regulatory Excellence (CORE) over the last year. The board received briefings on the Regulatory Excellence Project, and provided comments on the project and the recommendations, as well as on AER action plans and development plans for CORE.

The board made a significant governance change that separated oversight for the AER's risk management activities from the audit and finance committee and created a separate risk management committee with its own terms of reference.

The AER board of directors welcomed Cassie Doyle as its newest member last year. Ms. Doyle joined the board in March 2015, bringing with her public sector and governance experience, with a particular emphasis on the environment.

And while we welcomed Ms. Doyle to the directors' table, we said goodbye to two long-standing members, Fred Estlin, who chaired the audit and finance committee, and Cameron Bailey, the first chair of the risk management committee. Both directors played critical roles in establishing strong governance practices and oversight for the AER, and the board thanks them for their contributions and wishes them well in their future endeavours.

		Meetings attended
1	CASSIE DOYLE Risk Management Committee Chair	8/8
2	ANDY NEIGEL, RPF, B.Sc.Forestry Governance Committee Chair	7/8
3	SHEILA O'BRIEN, C.M., B.A. Human Resources, Health and Safety Committee Chair	7/8
4	DR. DAVID CHALACK, D.V.M. ICD.D	8/8
5	PETER FLYNN, Ph.D., P.Eng. Audit and Finance Committee Chair	8/8
6	GERRY PROTTI, M.A., ICD.D Chair, Nomination Committee Chair	8/8

BY THE NUMBERS

8 meetings

6 committees

①
②
③
④
⑤
⑥

BOARD COMMITTEES

The AER's six board committees receive reports and recommendations from management, provide information, make recommendations to the board for approval, and make decisions on behalf of the board in their areas of authority. The following summarizes the business of each committee over the past year.

The **Audit and Finance Committee** reviewed the AER's management discussion and analysis (MD&A). In addition to reviewing quarterly statements and the annual financial results and budget, the committee met with internal Audit at each of its meetings and monitored how AER management incorporated internal audit recommendations. The committee also met with the Auditor General of Alberta for the standing annual audit meeting.

The **Governance Committee** performed a full review of the terms of reference of all board committees and corporate bylaws to determine whether revisions were required and brought forward recommendations for the board's approval. The committee also managed the annual board evaluation process.

The **Human Resources, Health and Safety Committee** reviewed results of the occupational health and safety audit, the balances and performance of the various pension plans administered by the AER, and the governance and oversight of the individual plan assets and benefit provisions. The committee also advised the board on the CEO and executive team succession plans. Additionally, the committee reviewed workforce metrics and the ongoing development of a new competency framework that will support CORE.

The **Nomination Committee** prepared plans for the potential recruiting new directors in fiscal 2016/17.

The **Regulatory Review Committee** reviewed changes to and brought to the board for information a number of regulatory instruments, including

- *Directive 050: Drilling Waste Management*,
- *Directive 036: Drilling Blowout Prevention Requirements and Procedures*,
- *Directive 017: Measurement Requirements for Oil and Gas Operations*,
- *Directive 060: Upstream Petroleum Industry Flaring, Incineration and Venting*,
- the *Integrated Compliance Assurance Framework*, and
- draft directives outlining requirements for hydrocarbon emission controls and gas conservation in the Peace River area.

The committee took several rule amendments to the board for approval, including the annual orphan and administration levies.

The **Risk Management Committee** participated in a risk management workshop through the University of Alberta. The committee also reviewed the AER's move toward a risk management process in addition to reviewing a third-party analysis of the AER's historical risk management systems. The committee brought forward for board approval the principal risk reports and recommendations for dam safety and induced seismicity.

executive leadership team

Chair of the Board

President & CEO

The AER president and CEO reports directly to the chair of the AER board of directors and is accountable for day-to-day operations, which include leading and making decisions on applications, monitoring and overseeing energy resource activities for compliance, and closure of energy developments, including remediation and reclamation.

hearing

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

MANAGEMENT'S DISCUSSION & ANALYSIS

This management's discussion and analysis (MD&A) should be read in conjunction with the audited financial statements of the Alberta Energy Regulator (AER) for the years ended March 31, 2016 and 2015, and accompanying notes. The AER's financial statements and the financial data in this MD&A have been prepared in accordance with Canadian public sector accounting standards (PSAS).

All comparisons are between the years ended March 31, 2016 and 2015, unless otherwise noted. All amounts are expressed in thousands of Canadian dollars, unless otherwise noted.

ABOUT THE AER

The AER is the single provincial regulator for oil, natural gas, oil sands, and coal development in Alberta, operating under the *Responsible Energy Development Act* (*REDA*). The AER ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

All amounts are expressed in thousands of Canadian dollars, unless otherwise noted.

SUMMARY ANNUAL HIGHLIGHTS

	2016	2015
Administration levy	$ 240 168	$ 243 278
Orphan well levy	30 167	15 000
Provincial grant	—	19 800
Other revenue	8 145	9 914
Total revenue	278 480	287 992
Energy regulation	249 113	256 827
Orphan abandonment	31 111	15 760
Total expenses	280 224	272 587
Capital investment	$ 14 196	$ 20 854

The AER is an industry-funded regulator that is accountable to the Government of Alberta. The AER recovers its operating and capital asset costs through two separate revenue sources: an administration levy and other revenue. The AER collects the orphan well levy, which is paid directly to the Alberta Orphan Well Association (OWA) and is not used to recover the AER's costs.

With commodity prices low, the AER faced new challenges in fiscal 2016, including budget reductions in the administration levy and energy regulation expenses. In addition, the AER received no government funding in fiscal 2016. The provincial grant, which was received in fiscal 2015, was primarily for the remaining costs of setting up the new regulator.

To demonstrate fiscal restraint, continue its commitment to the effective management of its financial resources, and maximize the benefit from the funding it received, the AER extensively reviewed its budget. The review identified a number of expenditures that could be reduced without affecting the AER's mandate and its ability to advance key initiatives that contribute to the AER's vision. Cost-saving initiatives that followed the review included freezing salaries and reducing discretionary expenditures. These measures are reflected in the AER's energy regulation expenses, which decreased overall by $7 714, or 3 per cent, in fiscal 2016.

Capital investment was reduced by $6 658, or 32 per cent, in fiscal 2016 compared to the previous year because of one-time costs incurred in fiscal 2015 to set up the new regulator. Capital investment in 2015 included the expansion and restructuring of existing and new leased office spaces, as well as system enhancements and software purchases required to fulfil the AER's expanded mandate.

TOTAL REVENUES

Administration Levy

REDA authorizes the AER to levy an administration fee on the sectors that it regulates. Funds from industry levies and assessments are used to support the AER's operations and fulfil the AER's mandate to ensure the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle.

The AER's revenue requirements directly affect operator levy invoices. Other factors also contribute to the fee determination at an operator level, including increases and decreases in wells or entities within the sector, ownership transfers and amalgamations, new entrants, and volume fluctuations. Invoices vary according to individual operations, are based on operating statistics for the previous calendar year, and are levied to operators based on the sector they operate within.

	2016	2015
Oil and gas	$ 174 508	$ 176 479
Oil sands	62 184	63 062
Coal	3 601	3 630
Other	75	111
Total administration levy	**$ 240 168**	**$ 243 278**

The administration levy for the year ended March 31, 2016, decreased by $3 110, or 1 per cent. This decrease is related to the 2016 expense targets, which the AER reduced because of the current economic downturn in Alberta.

[illegible]

[illegible]

[illegible] levy

	2016	2015
[illegible]	$ [illegible]	$ [illegible]
[illegible]	[illegible]	[illegible]
[illegible]	$ [illegible]	$ [illegible]

[illegible] Part X of the [illegible] Act, the ASFF, by regulation, assesses an [illegible] levy. The levy is based on the revenue requirements identified by the [illegible] and approved by the Government of Alberta. All levies collected are used directly by the [illegible] and are not used to recover the ASFF costs. In fiscal 2016, the Government of Alberta approved an increase to the [illegible] levy from [illegible] to [illegible] to address the increase in [illegible] cities.

[illegible] grant

	2016	2015
[illegible]	$ [illegible]	$ [illegible]

The ASFF did not receive [illegible] grant revenue in fiscal 2016. The 2016 grant was related to the [illegible] of implementing the ASFF and its expanded responsibilities.

Other Revenue

	2016	2015
Other revenue	$ [illegible]	$ [illegible]

Other revenue consists of investment income, fine other, and licence fees, [illegible] subscriptions, recoverable assessments, and enforcement revenue and sales of electronic data and publications. In fiscal 2016, other revenue decreased by $[illegible] or [illegible] per cent, due to the current economic conditions and the [illegible] in oil and gas activity.

[illegible]

NOTES, EXPENSES FUNDS

[illegible]

2 Energy Regulatory Expenses

	[illegible]	[illegible]
Salaries, wages, and employee benefits	$ [illegible]	$ [illegible]
Employee services	[illegible]	[illegible]
Buildings	[illegible]	[illegible]
Contractors services	[illegible]	[illegible]
Amortization of tangible capital assets	[illegible]	[illegible]
Other expenses	[illegible]	[illegible]
Total energy regulatory expenses	$ [illegible]	$ [illegible]

[illegible]

Salaries, Wages, and Employee Benefits

[illegible]

[illegible]

Employee Services

[illegible]

(c) Capital investment

	2016	2015
Capital investment	$ 18 186	$ 21 814

Capital investment totalled $18 186 in fiscal 2016 compared to $21 814 in fiscal 2015. Developing and acquiring tangible capital assets, most significantly investment in information technology infrastructure and systems, is a key component of AEP operations.

In fiscal 2016, the AEP's investment in computer hardware and software was $10 187 and focused on the upgrades to the AEP's applications and databases, as well as the development of new systems required to support current operations and meet ongoing changes in the regulatory environment. In addition, the AEP spent $3 629 on leasehold improvements, furniture, and equipment with the majority of the costs related to the relocation of two field offices.

In fiscal 2015, the investment in tangible capital assets of $21 814 related primarily to the costs of setting up the AEP, which included expanding and restructuring existing and new lease office spaces, as well as system enhancements and software purchases necessary for the expanded mandate.

LIQUIDITY AND FINANCIAL POSITION

Liquidity

The AEP collects funding at the beginning of the year to meet all obligations that arise during the year. In addition, an available bank credit facility provides financial flexibility and allows the AEP to meet its obligations if funding cannot be collected on time. To date, the AEP has not been required to draw on the credit facility. The AEP ended fiscal 2016 with $24 203 in cash and cash equivalents compared to $14 140 at the end of fiscal 2015.

Accounts Receivable

Accounts receivable were $42 449 on March 31, 2016, compared to $32 240 on March 31, 2015, an increase of $1 809. The increase is mainly due to the timing of issuing the invoices well early in 2016. In fiscal 2015, the AEP was issued later than in fiscal 2015.

Accounts Payable

Accounts payable and accrued liabilities on March 31, 2016, were $36 843 compared to $33 35 on March 31, 2015, a decrease of $6 364. The decrease in the accounts payable and accrued liabilities balance on March 31, 2016, is attributable to the overall decrease in the AEP's expenditures in fiscal 2016 compared to fiscal 2015, as well as the timing of payment for the AEP's computer services and consulting expenses.

All amounts are expressed in thousands of Canadian dollars, unless otherwise noted.

SECURITY DEPOSITS

	2016 Cash	2015 Cash	2016 Letters of Credit	2015 Letters of Credit
Licensee Liability Rating Program	$ 107 695	$ 92 635	$ 183 162	$ 153 521
Mine Financial Security Program	24 230	24 020	1 340 513	1 548 938
Other	6 200	6 180	4 664	4 782
Total security deposits	**$ 138 125**	$ 122 835	**$ 1 528 339**	$ 1 707 241

The AER collects financial security under a number of different programs to protect the public from paying significant costs associated with abandoning and decommissioning energy development sites.

- The Licensee Liability Rating (LLR) program is designed to
  - prevent the costs of suspending, abandoning, remediating, and reclaiming a well, facility, or pipeline in the LLR program from being borne by the public of Alberta should a licensee become defunct and
  - minimize the risk to the orphan fund posed by the unfunded liability of licensees in the program.

  The program is based on a comparison of the ratio of assets (which are based on production) to liabilities (abandonment and reclamation costs).

  Effective May 1, 2013, the AER made changes to the LLR program to address concerns that the previous LLR program underestimated abandonment and reclamation liabilities of licensees; the changes were made with the support of the Canadian Association of Petroleum Producers and the Explorers and Producers Association of Canada. These changes were implemented in a three-phased approach and increased the amount of security that licensees who participate in the LLR program must deposit. The last phase of the program was implemented in fiscal 2016.

As of March 31, 2016, the AER held $107 695 in cash under the LLR program. This is $15 060, or 16 per cent, higher than on March 31, 2015. The total amount of letters of credit held under the LLR program as of March 31, 2016, was $183 162, which is $29 641, or 19 per cent, higher than in fiscal 2015. The increase in cash and letters of credit held under the LLR program was caused by the implementation of the third phase of the program changes discussed above, as well as by the decline in production due to low oil and gas prices, which reduced asset values and decreased the asset-to-liability ratios for licensees.

- The Mine Financial Security Program (MFSP) was developed to manage liabilities associated with coal and oil sands mining operations. The program requires a base amount of security for each project, which would provide the funds necessary to place the site in a safe and secure state and maintain care and custody should the approval holder fail to meet its obligations. Approval holders have an option to provide full financial security at any time in the life of the project based on the MFSP liability calculation. Approval holders are responsible for the suspension, abandonment, remediation, and reclamation of lands disturbed by resource development. As mines are depleted, security amounts increase. Additional security must also be posted when a mine owner does not meet certain financial tests. Annually, approval holders report to the AER on the status of reclamation and land disturbances and adjust their MFSP security deposits accordingly.

  The total amount of letters of credit held under the MFSP as of March 31, 2016, was $1 340 513, which is $208 425, or 13 per cent, lower than in fiscal 2015. In fiscal 2016, $233 163 in letters of credit outstanding under the MFSP as of March 31, 2015, were returned to licensees who originally elected to provide full financial security and later elected to provide base security, in accordance with the MFSP. This was offset by an additional $24 738 in letters of credit placed with the AER as a result of additional land disturbances caused by mining and processing operations.

All amounts are expressed in thousands of Canadian dollars, unless otherwise noted.

ACTUAL RESULTS COMPARED WITH BUDGET

	2016 Budget	2016 Actual
Revenues		
Administration levy	$ 240 093	$ 240 168
Orphan well levy	30 000	30 167
Other revenue	6 159	8 145
	276 252	278 480
Expenses		
Energy regulation	253 252	249 113
Orphan abandonment	30 500	31 111
	283 752	280 224
Annual operating (deficit)	(5 500)	(1 744)
Capital		
Capital investment	3 000	14 196
Less: Amortization	(11 500)	(12 643)
Loss on disposal and write-down of tangible capital assets		(332)
Net capital investment	(2 500)	1 219
	$ (3 000)	$ (2 963)

The AER prepares an annual budget that is approved by the Government of Alberta.

The AER's total revenues were consistent with budget. The AER's energy regulation expenses for the year were $4 139 less than budget, and net capital investment exceeded budget by $3 719. These variances are due to the acceleration of implementing computer software development projects and upgrades.

RISK MANAGEMENT

A key role of the AEF's management is to ensure that the wide variety of risks the AEF is exposed to in delivering its mandate are managed responsibly. To this end, the AEF has developed an enterprise risk management process that supports the organization in identifying, assessing, and managing risks. Effective risk management is a key element of excellent organizational governance, and is characterized by a process of continuous review and improvement.

The key features of the AEF's governance and internal control environment, which stems and guides risk management, are as follows:

- The general direction of the AEF's business affairs is set by a board of directors. These directors are all independent and appointed by Order-in-Council made by the Lieutenant Governor-in-Council under section 4(2)(a).
- The AEF is committed to maintaining a high level of ethics and integrity. The AEF board and management foster these values throughout the organization and maintain an effective whistleblower policy. The AEF maintains a code of conduct applicable to its directors, officers, employees, and contractors. The code of conduct reflects the values of the AEF, and provides rules and guidelines on adhering to these values in a way that ensures the organization's integrity is maintained.
- The board has established a standing Risk Management Committee that meets regularly to ensure that the AEF has effective risk management practices in place and to review the related systems of internal controls that are required to manage enterprise level risks.
- The AEF has an Enterprise Risk Management Program in place, which provides a common framework to identify, assess, and manage risks in line with the organization's mandate.
- The Audit and Finance Committee reviews and monitors the system of internal financial controls, the external audit process, and the AEF's process for ensuring compliance with applicable laws and regulations.
- AEF management is responsible for establishing and maintaining adequate internal controls over financial reporting. These controls are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.
- The AEF's internal audit function provides the AEF with an objective and independent assessment of internal controls and identifies opportunities to improve operational and financial reporting. The AEF's internal audit department reports directly to the Audit and Finance Committee and, if required, discusses matters with the Audit and Finance Committee independent of management.

ALBERTA ENERGY REGULATOR FINANCIAL STATEMENTS

FOR THE YEAR ENDED MARCH 31, 2021

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INDEPENDENT AUDITOR'S REPORT TO THE BOARD OF DIRECTORS OF THE ALBERTA ENERGY REGULATOR

AUDITOR GENERAL Alberta

REPORT ON THE FINANCIAL STATEMENTS

I have audited the accompanying financial statements of the Alberta Energy Regulator, which comprise the statement of financial position as at March 31, 2016, and the statements of operations, change in net debt and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

AUDITOR'S RESPONSIBILITY

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

OPINION

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Alberta Energy Regulator as at March 31, 2016, and the results of its operations, its remeasurement gains and losses, its changes in net debt, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

[Original signed by Merwan N. Saher FCPA, FCA]

Auditor General
May 11, 2016
Edmonton, Alberta

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The accompanying financial statements of the Alberta Energy Regulator (AER) and all other information relating to the AER contained in this annual report have been prepared and presented by management, who is responsible for the integrity and fair presentation of the information.

These financial statements are prepared in accordance with Canadian Public Sector accounting standards. The financial statements necessarily include some amounts that are based on informed judgments and best estimates of management. The financial information contained elsewhere in this annual report is consistent with that in the financial statements.

Management is responsible for maintaining an effective system of internal controls designed to provide reasonable assurance that financial information is reliable, transactions are properly authorized, assets are safeguarded, and liabilities are recognized.

The Auditor General of Alberta, the AER's external auditor appointed under the *Auditor General Act*, performed an independent external audit of these financial statements in accordance with Canadian generally accepted auditing standards, and has expressed his opinion in the accompanying Independent Auditor's Report.

The board of directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal controls. The board of directors exercises this responsibility through the Audit and Finance Committee, composed of directors who are not employees of the regulator. The Audit and Finance Committee meets with the internal auditors and the external auditors, both in the presence and in the absence of management to discuss their audit, including any findings as to the integrity of financial reporting processes and the adequacy of our systems of internal controls. The internal and external auditors have full and unrestricted access to the Audit and Finance Committee.

[Original signed by Jim Ellis]
President and Chief Executive Officer

[Original signed by Rick Brown]
Executive Vice President, Corporate Services

[Original signed by Tom Heywood]
Vice President, Finance and Chief Financial Officer

May 11, 2016

ALBERTA ENERGY REGULATOR
STATEMENT OF OPERATIONS
Year Ended March 31
(in thousands)

	2016		2015
	Budget (Note 3)	Actual	Actual
Revenues			
Industry levies and assessments	$ 270 093	$ 270 535	$ 253 276
Provincial grant		–	19 000
Information, services and fees	6 859	6 867	6 260
Investment	1 500	1 278	1 654
	278 252	278 680	280 190
Expenses			
Energy regulation (Schedule 1)	253 252	249 113	256 827
Orphan abandonment (Note 4)	30 500	31 111	15 760
	283 752	280 224	272 587
Annual operating (deficit) surplus	(5 500)	(1 744)	15 400
Accumulated operating surplus at beginning of year	63 855	63 855	48 450
Accumulated operating surplus at end of year	$ 58 355	$ 62 111	$ 63 850

The accompanying notes and schedules are an integral part of these financial statements.

[illegible]

ALBERTA ENERGY REGULATOR
STATEMENT OF FINANCIAL POSITION
As at March 31
[illegible]

	2018	2017
Financial assets		
Cash and cash equivalents, Note 12	$ [illegible]	$ [illegible]
Security Deposits, Note 11	[illegible]	[illegible]
Accounts receivable	[illegible]	[illegible]
	[illegible]	[illegible]
Liabilities		
Accounts payable and accrued liabilities	[illegible]	[illegible]
Grant payable to Orphan Well Association	[illegible]	[illegible]
Security deposits (Note 11)	[illegible]	[illegible]
Deferred revenue (Note 5)	[illegible]	[illegible]
Deferred lease incentives (Note 6b)	[illegible]	[illegible]
Provision obligations (Note 7)	[illegible]	[illegible]
	[illegible]	[illegible]
Net cash	[illegible]	[illegible]
Non-financial assets		
Tangible capital assets (Note 8)	[illegible]	[illegible]
Prepaid expenses and other assets	[illegible]	[illegible]
	[illegible]	[illegible]
Accumulated operating surplus (Note 10)	$ [illegible]	$ [illegible]

Contractual obligations (Note 9c)

The accompanying notes and schedules are an integral part of this financial statement.

[illegible]

[illegible]

ALBERTA ENERGY REGULATOR
NOTES TO THE FINANCIAL STATEMENTS
March 31, 2018
(in thousands)

Note 1 Authority and purpose

The Alberta Energy Regulator (AER) is an independent and quasi-judicial organization of the Government of Alberta. The AER operates under the *Responsible Energy Development Act*. The AER's mandate provides for the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

Note 2 Summary of significant accounting policies and reporting practices

These financial statements are prepared in accordance with Canadian Public Sector Accounting Standards (PSAS).

(a) **Revenues**

All revenues are reported on the accrual basis of accounting. Cash received for which services have not been provided by year end is recorded as deferred revenue.

Government transfers

Transfers from the Government of Alberta are referred to as provincial grants.

Provincial grants, without terms for the use of the transfer, are recorded as revenue when the transfer is authorized and the AER is eligible to receive the funds.

(b) **Expenses**

Expenses are reported on an accrual basis. The cost of all goods consumed and services received during the year is expensed.

(c) **Valuation of financial assets and liabilities**

The AER's financial assets and liabilities are generally measured as follows:

Financial Statement Component	Measurement
Cash and cash equivalents	Cost
Accounts receivable	Lower of cost or net recoverable value
Security deposits	Cost
Accounts payable and accrued liabilities	Cost
Grant payable to the Orphan Well Association	Cost

Note 2 Summary of significant accounting policies and reporting practices (continued)

The AER has not designated any financial assets or liabilities in the fair value category, has no significant foreign currency transactions and does not hold any derivative contracts. The AER has no significant remeasurement gains or losses and consequently has not presented a statement of remeasurement gains and losses.

(d) Financial assets

Financial assets are assets that could be used to discharge existing liabilities or finance future operations and are not for consumption in the normal course of operations.

Financial assets of the AER are limited to cash and cash equivalents, security deposits and financial claims on other organizations.

(e) Liabilities

Liabilities are present obligations of the AER to others arising from past transactions or events, the settlement of which is expected to result in the future sacrifice of economic benefits.

Pension

Accrued benefit obligations are actuarially determined using the projected benefit method prorated on length of service and management's best estimate of expected plan investment performance, projected employees' compensation levels and retirement age of employees.

The expected return on plan assets is determined using market values of plan assets.

Actuarial gains and losses are amortized over the average remaining service period of the active employees, which is 9.6 years.

Past service cost arising from plan amendments is accounted for in the period of the plan amendments.

Defined contribution plan accounting is applied to the Government of Alberta multi-employer defined benefit pension plans as the AER has insufficient information to apply defined benefit plan accounting. The AER is not responsible for future funding of the plan deficit other than through contribution increases.

Deferred lease incentives

Deferred lease incentives, consisting of leasehold improvement costs, reduced rent benefits and rent-free periods, are amortized on a straight-line basis over the term of the lease.

Note 2 Summary of significant accounting policies and reporting practices (continued)

Liability for contaminated sites

Contaminated sites are a result of contamination of a chemical, organic or radioactive material or live organism that exceeds an environmental standard, being introduced into soil, water or sediment. The liability is recorded net of any expected recoveries. A liability for remediation of contaminated sites is recognized when all of the following criteria are met:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the AER is directly responsible or accepts responsibility;
- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

(f) Non-financial assets

Non-financial assets are acquired, constructed or developed assets that do not normally provide resources to discharge existing liabilities, but instead:

- are normally employed to deliver AER services;
- may be consumed in the normal course of operations; and
- are not for sale in the normal course of operations.

Non-financial assets of the AER are limited to tangible capital assets and prepaid expenses and other assets.

Tangible capital assets

Tangible capital assets are recorded at historical cost, which includes amounts that are directly related to the acquisition, design, construction, development, improvement or betterment of the assets and are amortized over their estimated useful lives using the following methods:

Leasehold improvements	Straight line	Term of the lease
Furniture and equipment	Straight line	5 – 12 years
Computer hardware	Straight line	4 – 5 years
Computer software – purchased	Straight line	4 – 5 years
Computer software – developed	Declining balance	5 years

Amortization is only charged if the tangible capital asset is put into service.

Work-in-progress, which includes developed computer software and leasehold improvements, is not amortized until a project is complete and the asset is put into service.

Note 2 Summary of significant accounting policies and reporting practices (continued)

(f) Non-financial assets (continued)

Tangible capital assets are written down when conditions indicate that they no longer contribute to the AER's ability to provide goods and services, or when the value of future economic benefits associated with the tangible capital assets is less than their net book value. The net write-downs are accounted for as expense in the Statement of Operations.

(g) Measurement uncertainty

Measurement uncertainty exists when there is a variance between the recognized or disclosed amount and another reasonably possible amount. The amounts recorded for amortization of tangible capital assets are based on estimates of the useful life of the related assets. Accrued defined benefit obligations are subject to measurement uncertainty due to the use of actuarial assumptions. The resulting estimates are within reasonable limits of materiality and are in accordance with the AER's significant accounting policies.

(h) Change in accounting policy

Adoption of net debt presentation

The net debt presentation with reclassification of comparatives has been adopted for the presentation of financial statements. Net debt or net financial assets is measured as the difference between the AER's financial assets and liabilities.

The effect of this change results in changing the presentation of the Statement of Financial Position and adding the Statement of Change in Net Debt.

(i) Future accounting changes

In March 2015 the Public Sector Accounting Board (PSAB) issued the following accounting standards:

PS 2200 Related Party Disclosure and PS 3420 Inter-entity Transactions (effective April 1, 2017)

PS 2200 defines a related party and establishes disclosures required for related party transactions; PS 3420 establishes guidance on how to account for and report transactions between public sector entities that comprise a government's reporting entity from both a provider and recipient perspective. Management is currently assessing the impact of these standards on the financial statements.

Note 2 Summary of significant accounting policies and reporting practices (continued)

(d) Future accounting changes (continued)

In June 2015, the PSAB issued the following accounting standards:

PS 3280 Assets, PS 3320 Contingent Assets and PS 3380 Contractual Rights (effective April 1, 2017)

PS 3280 provides guidance for applying the definition of assets set out in Financial Statement Concepts, PS 1000, and establishes general disclosure standards for assets. PS 3320 defines and establishes disclosure standards on contingent assets. PS 3380 defines and establishes disclosure standards on contractual rights. Management is currently assessing the impact of these standards on the financial statements.

PS 3430 Restructuring Transactions (effective April 1, 2018)

This standard provides guidance on how to account for and report restructuring transactions by both transferors and recipients of assets and/or liabilities, together with related programs or operating responsibilities. Management is currently assessing the impact of these standards on the financial statements.

Note 3 Budget

The Budget is based on the AER Business Plan for the year ended March 31, 2016. The Budget was approved by the Government of Alberta.

Note 4 Orphan abandonment

The AER has delegated the authority to manage the abandonment and reclamation of wells, facilities and pipelines that are licensed to defunct licensees to the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (Orphan Well Association). The AER grants all of its orphan abandonment levy and application fees to the Orphan Well Association. During the year ended March 31, 2016, the AER collected $37,901 ($39,000 in levies and $(1,099) in application fees).

Note 5 Cash and cash equivalents

Cash and cash equivalents are held in an account with a Canadian chartered bank and earn interest calculated based on the average monthly cash balance. The funds are available on the advancement upon request. During the year ended March 31, 2016, the AER earned interest at the rate of 1% (2015 – 1.0%).

Note 5.1 Retirement benefits

	2020	2019
Retirement benefits expense (note)	£ [illegible]	£ [illegible]
Pensions contributions	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	£ [illegible]	£ [illegible]

Note 5.2 [illegible] share accounting

[illegible]

	[illegible]			2019
	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	£ [illegible]	£ [illegible]	£ [illegible]	[illegible]

Note 5.3 [illegible] tax [illegible] cost

[illegible]

Note 13 **Pension**

The ASE participates in the Government of Alberta's multi-employer pension plans, Management Employees Pension Plan (MEPP) and Public Service Pension Plan and Supplementary Retirement Plan for Public Service Managers. For the year ended March 31, 2016, the expense for these pension plans is equal to the contribution of $[illegible] (2015 – $[illegible]). Pension expense recorded is comprised of employer contributions to the plans that are required for its employees during the year, which are calculated based on actuarially determined amounts that are expected to provide the plans' future benefits.

In addition, the ASE maintains its own defined benefit Senior Employees Pension Plan (SERP) and two supplementary pension plans to compensate senior staff who do not participate in the government management pension plans. Retirement benefits are based on each employee's years of service and remuneration.

The effective date of the most recent actuarial funding valuation for SERP was [illegible] 31, 2016. The accrued benefit obligation as at March 31, 2016 is based on the extrapolation of the results of the valuation. The effective date of the next required funding valuation for SERP is [illegible] 31, 2017.

Pension plan assets are valued at market values. During the year ended March 31, 2016, the weighted average actual return on plan assets was [illegible]% ([illegible]% in 2015).

Significant weighted average actuarial and economic assumptions used to value accrued benefit obligations and pension benefit costs are as follows:

	March 31, 2016	March 31, 2015
Accrued benefit obligations		
Discount rate	[illegible]%	[illegible]%
	[illegible]% for [illegible] years;	[illegible]% for [illegible] years;
	[illegible]%	[illegible]%
Rate of compensation increase	[illegible]%	[illegible]%
Long-term inflation rate	[illegible]%	[illegible]%

Note 12 Pension (continued)

Pension benefit costs for the year	2016	2015
Discount rate	4.3%	5.3%
Expected rate of return on plan assets	4.3%	5.3%
Rate of compensation increase	0% for 1 year, 3.5% thereafter	3.8%

The funded status and amounts recognized in the Statement of Financial Position are as follows:

	March 31, 2016	March 31, 2015
Market value of plan assets	$ 47 853	$ 45 087
Accrued benefit obligations	54 639	49 510
Plan (deficit)	(6 786)	(4 423)
Unamortized actuarial loss	6 094	2 074
Pension obligations	$ (692)	$ (2 349)

The pension benefit costs for the year include the following components:

	2016	2015
Current period benefit cost	$ 4 375	$ 3 625
Interest cost	2 573	2 394
Expected return on plan assets	(2 330)	(2 110)
Amortization of actuarial losses	436	396
	$ 5 054	$ 4 305

Note 12 Pension (continued)

Additional information about the defined benefit pension plans is as follows:

	2016	2015
AER contribution	$ 6 711	$ 5 247
Employees' contribution	861	731
Benefits paid	3 216	3 350

The asset allocation of the defined benefit pension plans' investments is as follows:

	March 31, 2016	March 31, 2015
Equity securities	47.9%	49.9%
Debt securities	37.7%	38.4%
Other	14.4%	11.7%
	100.0%	100.0%

Note 13 Tangible capital assets

	2016					2015
	Land	Leasehold improvements	Furniture and equipment	Computer hardware and software	Total	Total
Estimated useful life	Indefinite	Terms of the lease	5-12 years	4-5 years		
Historical cost						
Beginning of year	$ 282	$ 36 055	$ 16 154	$ 123 999	**$ 176 490**	$ 157 359
Additions	–	2 870	759	10 567	**14 196**	20 854
Disposals, including write-downs	–	(218)	(1 664)	(7 698)	**(9 580)**	(1 723)
	282	38 707	15 249	126 868	**181 106**	176 490
Accumulated amortization						
Beginning of year	$ –	$ 7 740	$ 9 227	$ 96 312	**$ 113 279**	$ 102 387
Amortization expense	–	2 266	1 066	9 313	**12 645**	11 836
Disposals, including write-downs	–	(86)	(1 489)	(7 673)	**(9 248)**	(944)
	–	9 920	8 804	97 952	**116 676**	113 279
Net book value at March 31, 2016	**$ 282**	**$ 28 787**	**$ 6 445**	**$ 28 916**	**$ 64 430**	
Net book value at March 31, 2015	$ 282	$ 28 315	$ 6 927	$ 27 687		$ 63 211

Historical cost includes work-in-progress at March 31, 2016 totaling $3 767 (March 31, 2015 - $454) comprised of: computer hardware and software $3 767 (March 31, 2015 - $321) and leasehold improvements $nil (March 31, 2015 - $133).

Note 14 Accumulated operating surplus

The accumulated operating surplus of the AER is calculated as the sum of the net debt of the AER and its non-financial assets. The accumulated operating surplus represents the net assets of the AER. Accumulated operating surplus is comprised of the following:

	2016			2015
	Investments in tangible capital assets[1]	Unrestricted net assets	Accumulated operating surplus	Accumulated operating surplus
Balance at beginning of year	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Annual operating (deficit) surplus	—	[illegible]	[illegible]	[illegible]
Net investment in capital assets	[illegible]	[illegible]	—	—
Balance at end of year	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]

[1] Excludes electrical infrastructure costs borrowed by the AER as a pass-through.

Note 15 Contingent Liabilities

The AER, in the course of its normal activities, is a defendant in a number of legal proceedings. While the ultimate outcome and liability of these proceedings cannot be reasonably determined at this time, the AER believes that any settlement will not have a material adverse effect on the financial position or the results of operations of the AER. Based on legal advice, management has concluded that none of the claims meet the criteria for recording an accrued liability under PSAS.

Note 16 Commitments

Commitments are obligations of the entity to acquire goods, services or assets in the future that will result in the entity's assets and liabilities at the reporting date when the transactions are executed.

Estimated payments, receipts and obligations under operating leases and contracts for each of the next five years and thereafter are as follows:

2019	$ [illegible]
2020	[illegible]
2021	[illegible]
2022	[illegible]
2023	[illegible]
Thereafter	[illegible]
	$ [illegible]

Note 17 Related party transactions

Related parties are those entities consolidated or accounted for on the consolidated financial statements.

The following transactions occurred with related parties and balances outstanding at the reporting date:

	Entities in the Ministry		Other entities	
	2019	2018	2019	2018
Revenue				
Provision of goods	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Information services and fees	[illegible]	[illegible]	[illegible]	[illegible]
	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]

[illegible]

ALBERTA ENERGY REGULATOR

SCHEDULE TO THE FINANCIAL STATEMENTS

Energy Regulation Expenses

Year Ended March 31, 2016

(in thousands)

Schedule 1

	2016	2015
Salaries, wages and employee benefits	$ 160 759	$ 119 149
Computer services	19 218	15 512
Buildings	19 184	16 316
Consulting services	13 652	10 093
Amortization of tangible capital assets	12 640	11 035
Travel and transportation	8 832	5 182
Administrative	8 375	8 154
Equipment rent and maintenance	5 08	1 515
Supplies and materials	3 87	1 258
Loss on disposal and write-down of tangible capital assets	322	775
	$ 249 112	$ 216 827

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS

Schedule 2

Salaries and Benefits Disclosure
Year Ended March 31, 2016
(in thousands)

	2016				2015
Position	Base salary[a]	Other cash benefits[b]	Other non-cash benefits[c]	Total[d]	Total
Board of directors					
Chairman	$ 269	$ –	$ 7	$ 276	$ 291
Board Director	114	–	6	120	119
Board Director	117	–	1	118	117
Board Director	107	–	10	117	129
Board Director	106	–	1	106	108
Board Director[e]	72	–	5	77	–
Board Director[f]	60	–	7	67	127
Board Director[g]	24	–	4	28	131
Board Director[h]	–	–	–	–	29
Executives					
President and Chief Executive Officer[i]	529	48	148	725	710
Chief Hearing Commissioner[j]	210	17	60	287	261
Executive Vice-President, Corporate Services	275	90	75	440	411
Executive Vice-President and General Counsel[k]	275	90	88	453	418
Executive Vice-President, Operations[l]	317	99	108	524	449
Executive Vice-President, Stakeholder & Government Relations	279	99	77	451	432
Executive Vice-President, Strategy & Regulatory[m]	275	73	38	386	414

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS

Schedule 2 (continued)

Salaries and Benefits Disclosure (continued)
Year Ended March 31, 2016
(in thousands)

(a) Includes retainers and per diems for Board Directors. Members of the Board of Directors do not participate in the AER's pension plans. Includes pensionable base pay for Executives.
(b) Payments in lieu of vacation and health benefits, vehicle allowances, and short term incentive payments for Executive Vice-Presidents.
(c) Contributions to all benefits as applicable including employer's share of Employment Insurance, Canada Pension Plan, Alberta and AER pension plans, health benefits or payments made for professional memberships and tuition fees.
(d) Salaries and benefits for the Board of Directors are presented in descending order.
(e) The incumbent held the position effective August 1, 2015.
(f) The incumbent left the position effective September 30, 2015.
(g) The incumbent left the position effective June 16, 2015.
(h) The incumbent left the position effective June 26, 2014.
(i) Automobiles provided, no dollar amount included in other non-cash benefits. During 2016, a relocation expense, related to home equity loss due to a required transfer of location, was paid in the amount of $127. Relocation expenses are a normal business expense and are not considered to be compensation.
(j) The position was held by two individuals in 2015.
(k) Under the terms of the AER's defined benefit SEPP and two supplementary retirement plans (SRP), employees may receive supplemental retirement payments. Retirement arrangement costs as detailed below are not cash payments in the period but are the period expense for rights to future compensation. Costs shown reflect the total estimated cost to provide annual pension income over an actuarially determined post-employment period. The SEPP and SRP provide future pension benefits to participants based on years of service and remuneration. The cost of these benefits is actuarially determined using the projected benefit method pro-rated on service, a market interest rate, and management's best estimate of expected costs and the period of benefit coverage. Net actuarial gains and losses of the benefit obligations are amortized over the average remaining service life of the employee group. Current service cost is the actuarial present value of the benefits earned in the fiscal year. Prior service and other costs include amortization of past service costs, amortization of actuarial gains and losses, and interest accruing on the actuarial liability. The costs detailed below are only for those employees included in Schedule 2 who participate in the SEPP and SRP maintained by the AER to compensate senior staff who do not participate in the government management pension plans.

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS
Salaries and Benefits Disclosure (continued)
Year Ended March 31, 2016
(In thousands)

Position	2016 Current service cost	2016 Prior service and other costs	2016 Total	2015 Total
Executive Vice-President and General Counsel	$ 39	$ 8	$ 47	$ 42
Executive Vice-President, Operations	54	2	56	52
Executive Vice-President, Strategy & Regulatory	5	22	27	40

Position	Accrued obligation April 1, 2015	Changes in accrued obligation	Accrued obligation March 31, 2016	2015
Executive Vice-President and General Counsel	$ 403	$ 72	$ 475	$ 403
Executive Vice-President, Operations	125	79	204	125
Executive Vice-President, Strategy & Regulatory	1 108	67	1 175	1 108

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS
Actual Results Compared with Budget
Year Ended March 31, 2016
(in thousands)

Schedule 1

	2016	
	Budget (Note 3)	Actual
Revenues		
Industry levies and assessments	$ [illegible]	$ [illegible]
Provincial grant	[illegible]	[illegible]
Information, services and fees	[illegible]	[illegible]
Investment	[illegible]	[illegible]
	[illegible]	[illegible]
Expenses		
Energy regulation	[illegible]	[illegible]
Orphan abandonment	[illegible]	[illegible]
	[illegible]	[illegible]
Annual operating (deficit)	[illegible]	[illegible]
Capital		
Capital investment	[illegible]	[illegible]
Less: Amortization	[illegible]	[illegible]
Less: (in disposal and write-down of tangible capital assets		[illegible]
Net capital investment	[illegible]	[illegible]
	$ [illegible]	$ [illegible]

GLOSSARY

Hydraulic fracturing
The process of pumping fluid into a well bore to create enough pressure to crack or fracture the rock layer. The fluid usually contains a proppant, like sand, that helps keep the fractures open to allow oil and gas to be produced to the well.

Hydrogen sulphide gas
A naturally occurring gas found in a variety of geological formations and also formed by the natural decomposition of organic matter in the absence of oxygen. H_2S is colourless, has a molecular weight that is heavier than air, and is extremely toxic. In small concentrations it has a rotten egg smell and causes eye and throat irritation.

Inactive well
A well that has been idle for 6 or 12 months, depending on type, but has not been confirmed to accordance with Directive 020 Suspension Requirements for Wells.

Reclaiming
The reusing and conserving of waste gas streams, air, and fuel in an enclosed chamber. Air and gas are mixed at a low molar rate and ignited. No flame is visible. Inert or volumetric heat is constantly present and very emissions, flaring, venting.

Integrated Compliance Assurance Framework
The framework defines the outcomes and makes the guiding principles that AER staff use when undertaking compliance assurance activities. It describes the key components of education, prevention, and enforcement. It also sets out the AER's approach to ensuring effective delivery, management, and reporting of compliance activities.

Integrated Resource Management System (IRMS)
A Government of Alberta approach to managing Alberta's environment and natural resources through cooperation between various government ministries and agencies. Partners on the AER government assessments of Indigenous Relations, Energy, Agriculture and Forestry, and Environment and Parks.

Licensee Liability Rating Program
An AER program that seeks to prevent AB parties from having to pay for abandonment and reclamation. The program compels a company's assets to its liabilities and requires those with greater liabilities to pay security to cover all abandonment and reclamation costs.

Multistakeholder Engagement Advisory Committee
A committee formed by the AER to create more opportunities for open communication with our stakeholders and to seek input on AER initiatives. Members include environmental nongovernmental organizations, landowners, community groups, First Nations and Métis groups, and others.

Near-Term Action Program (NTAP)
An AER project that aims to increase our efficiency by eliminating duplication and streamlining regulatory requirements for day-to-day activities.

oil sands
A mixture of sand, clay, water, and bitumen.

P

play-based regulation
An AERI project designed to give stakeholders a clearer picture of development, more effectively address cumulative effects, reduce industry's footprint by encouraging collaboration between operators, and reduce duplicative and unnecessary infrastructure. *See also* area-based regulation.

Public Lands Act
Legislation, or law, guiding the use of land owned by the province of Alberta (i.e., public land). The AERI regulates energy resource development on public lands, ensuring that energy exploration, development, and ongoing operations on public lands are carried out responsibly.

R

reclamation certificate
Reclamation certificates are required for all publicly owned land as stated in the *Environmental Protection and Enhancement Act*. Operators are required to return the land to its equivalent state—i.e., as close to its pre-project state as possible—once an oil and gas project is complete.

regulatory excellence
As defined by the University of Pennsylvania's Penn Program on Regulation, regulatory excellence embodies the attributes of utmost integrity, empathic engagement, and stellar competence.

remaining established reserves
The amount of a resource that is still in the ground. Remaining established reserves equal initial established reserves less cumulative production.

Responsible Energy Development Act (REDA)
Legislation, or law, establishing and empowering the AERI. *REDA* sets out the AERI's mandate, structure, powers, duties, and functions.

risk-based
The practice of focusing on higher risk areas or activities.

risk-based regulation
Part of the AERI's effort to meet the demands of a new energy development landscape, risk-based regulation will allow us to be more effective by concentrating our resources on higher-risk activities. Many of the AERI's major projects, including the one application, one review, one decision approach; the Near-Term Action Program; the play-based regulation project; and area-based regulation are part of the effort to take a more risk-based approach to regulating energy development.

S

stakeholder
Any individual, group of individuals, or organization with an interest in the outcome of a decision.

stellar competence
From the Regulatory Excellence initiative, stellar competence is an attribute we will need to exhibit to be excellent. It means that our people have the required expertise and the necessary tools to carry out their responsibilities and that we seek expertise and information outside of our organization to make well-informed decisions. We deliver outcomes, measure and report on our performance, and continuously improve. *See also* empathic engagement; utmost integrity.

subsurface order
A subsurface order is issued pursuant to section 11.104 of the *Oil and Gas Conservation Rules* and specifies rules and requirements to better suit development, production, and data gathering for specific geological zones over a defined area.

suspended well
A well at which no significant producing or injecting operations have occurred during the past 12 months.

T

tailings
Tailings are a by-product of the process used to extract bitumen from mined oil sands and consist of water, silt, sand, clay, and residual bitumen. Sand and other heavy particles quickly separate from the water, but smaller particles of clay and silt remain in suspension, forming fluid tailings. Fluid tailings can take decades to settle and are an ongoing challenge for the oil sands mining industry. *See also Tailings Management Framework of the Mineable Athabasca Oil Sands.*

Tailings Management Framework of the Mineable Athabasca Oil Sands
Developed by the Government of Alberta to provide the AER with direction to manage fluid tailings volumes. *See also* tailings.

traffic-light protocol
An AER process that defines the stages at which operators need to take action when seismic activity occurs. Seismic events between the magnitudes of 2 and 4 require operators to report the event and activate their induced seismicity plans; events with magnitudes of 4 or greater require operators to immediately cease hydraulic fracturing operations at the affected well, while also reporting the event and activating the plan.

U

upstream
The producing end of the energy industry. Compare "downstream" operations, which include transport, refining, and making products.

utmost integrity
From the Regulatory Excellence initiative, utmost integrity is an attribute that we will need to exhibit to be excellent. It means that we are accountable as a protective, effective, efficient, and credible regulator and that we are fair and unbiased. We adhere to government policy and take a leadership in identifying policy gaps where they exist, and we make evidence-based decisions that consider the environment, the unique nature of the energy development, traditional knowledge, and information brought forward by local communities. *See also* empathic engagement, stellar competence.

V

venting
The intentional and controlled release of uncombusted gas. *See also* emissions, flaring, incinerating.

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